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WATCH WHAT YOU EAT: FOOD MARKETING TO KIDS

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON LABOR, HEALTH AND HUMAN
SERVICES, EDUCATION, AND RELATED AGENCIES

AND THE

SUBCOMMITTEE ON FINANCIAL SERVICES AND
GENERAL GOVERNMENT

OF THE

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WATCH WHAT YOU EAT: FOOD MARKETING TO KIDS

TUESDAY, SEPTEMBER 23, 2008

U.S. SENATE, SUBCOMMITTEE ON LABOR, HEALTH AND
HUMAN SERVICES, EDUCATION, AND RELATED AGEN-
CIES, AND SUBCOMMITTEE ON FINANCIAL SERVICES AND
GENERAL GOVERNMENT, COMMITTEE ON APPROPRIA-
TIONS,

Washington, DC.

The subcommittees met at 10:35 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Tom Harkin (chairman of the Labor-HHS Subcommittee) presiding.

Present: Senators Harkin, Durbin, and Brownback.

OPENING STATEMENT OF SENATOR TOM HARKIN

Senator HARKIN. Good morning, everyone. The two subcommittees of the Appropriations Committee will come to order.

This is the Subcommittee on Labor, Health, and Human Services, Education, and Related Agencies, and the Subcommittee on Financial Services and General Government, subcommittee of the Committee on Appropriations.

I'd like to thank everyone for coming today to examine the role of media and marketing food, beverages, and lifestyles to children. I especially want to thank my ranking member, Senator Arlen Specter, and also the Financial Services Subcommittee, Senator Brownback, Senator Durbin, for working with us to have this kind of a joint hearing. We don't often get to work across jurisdictions, so I'm gratified that this epidemic of childhood obesity has inspired this rare meeting of two subcommittees of the Appropriations Committee.

I just want to say that, because of the number of witnesses, we've had to shorten the statements; I'll get right to the point. I'm convinced that the food and beverage industry and the—and kids media industry, with all of their creativity and resourcefulness, can be a powerful force for change and doing good. Therefore, today's hearing is to discuss media and marketing.

Now, I'm going to have other hearings on school nutrition as we do the—as I wear my other hat, on agriculture, as we do the reauthorization of the childhood—the Child Nutrition Act for next year. But, I want to hear from you here today on how media and advertising can be a part of the solution.

Senator Brownback and I have worked together on this a lot in the past, and looking at the FCC and how we can try to get a handle on this, with the help and assistance of the industry.

Now, I must say, in this regard, some within the food and beverage industry, and several media companies, have really tried to do the right thing. In the second panel, we're going to hear from Kraft. Kraft Foods took the lead, back in 2005. They announced that all TV, radio, and print advertising viewed primarily by children ages 6 to 11 would feature only Kraft products that meet specific nutrition criteria. And then, in 2006, Kraft extended this policy to their Web sites. So, I personally want to applaud Kraft's work in this area, and hope to hear, today, how we can build on those advancements.

Also, in November 2006, the Council of Better Business Bureaus formed the Children's Food and Beverage Advertising Initiative. Fifteen food companies have joined the initiative and pledged to limit their marketing to children to foods that meet company-developed nutrition standards. In addition, several media companies, including Disney, Sesame Workshop, and Cartoon Network, announced that they will only license their characters on foods that meet their own nutrition standards. Nickelodeon has also announced a licensed-character program that relies on individual food company nutritional standards.

So, I look forward to learning more about these programs from our second panel, and I'll be asking if all of Viacom's characters are included.

You know, kids are powerfully influenced by these characters. I mean, you know, to me, Nemo is a cartoon character, but to kids, he's an authority figure. So, you know, just the way you look at it.

Now, again, there are some great examples of how these characters can assist in marketing good food to our kids. And here, I have some props. What's good if you don't have a prop, right? Here are mandarin oranges with Disney characters on it, on the front of it. Yeah, Nemo. Thanks for telling me that.

Senator HARKIN. Nemo's on the front of the mandarin oranges. That's good. And here's—I never thought I'd live to say the—they see this Mickey Mouse on a head of lettuce.

Now, to me, that's the direction we ought to be going.

So, again—it looks good. So, what's the problem? Well, here are some of the problems. Studies have found that about 50 percent of commercial advertisements targeted to young people during Saturday morning programming are for food and beverage products, but few commercials are viewed for dairy products, fruits, or vegetables. In 2007, a study published in *Pediatrics* reviewed approximately 98,000 advertisements from a sample of television programs that were top-rated among kids under 17, found that nearly all of them—98 percent—viewed by the kids, and 89 percent viewed by adolescents, were for products that were high in fat, sugar, or sodium. That was in 2007, a year after Kraft changed its guidelines, and after the creation of the Better Business Bureau initiative.

A 2008 study by the Kaiser Family Foundation found that little television airtime was devoted to the promotion of healthy food choices. The study examined 1,680 hours of television content on ten major broadcasting cable networks. It reported that, across all of the ten networks, paid public service announcements were shown for an average of 10 seconds per hour, but none of them promoted good nutrition. Now, that's 28 minutes a week. Donated

PSAs—public service announcements—represented only one-half of 1 percent of all airtime, and, within that, an average of 28 seconds per week was on promoting good nutrition. Twenty-eight seconds per week on public service announcements.

So, again, I think this is where the problem lies. Now, again, I don't want to be misunderstood. It's television, but now a lot of kids are now on the Internet and social networking on the Internet. I thought I was doing pretty good, Sam, I've got 1,500 friends on my Facebook.

Senator BROWNBAC. Yeah, very good.

Senator HARKIN. Yes, until I found out Obama had 8.1 million. I've got 1,500. Okay? I've got 100 friends on my Facebook.

But—so, anyway, but more and more kids are doing that. So, again, we need to think about that, also.

Expenditures for advertising on social-network Web sites are expected to reach \$1.8 billion by 2010. Markets such as Wendy's, Burger King, and Pepsi have created profiles on My Space, where visitors can interact with the brand, just as they would with the profiles of their other friends. So, again, this is the wave of the future. The question for us is, Will it just be foods that are high in sugar, fat, and sodium, or will we, kind of, redirect this towards other ways? Will the companies do that?

So, again, these are the questions I think we need to be exploring. I applaud what's happening on some of these things, but we've got to think about what's happening both on television and on the Internet, where kids are spending a lot of their time and where they're getting a lot of influence.

So, I guess I look forward to hearing today from the witnesses on how we can change the landscape of what our kids see on TV, on the Internet, grocery items, and on and on. We're going to be discussing, a lot in the next year or two, healthcare. I don't care—well, maybe I do care who gets elected President, but regardless who gets elected President, this Congress and the next administration are going to be working on healthcare reform. If all we're going to be doing is talking about how we pay the bills, it's not going to get us anywhere. We've got to get ahead of the curve with prevention and wellness programs, and that starts with our kids, getting our kids started off early in life, eating the right kind of foods, enjoying the right kind of foods, developing the kind of tastes for the right kind of foods, so that they won't be developing diabetes and obesity, and the other things that are plaguing our kids today. So, I see this as sort of the front end, the most important part of what we're going to be doing in healthcare reform in the next couple of years.

And I have talked way too long, and I would yield to my good friend, Senator Brownback.

STATEMENT OF SENATOR SAM BROWNBAC

Senator BROWNBAC. Thank you very much. Mr. Chairman, I couldn't agree more with your statement, and I really appreciate working with you and with Chairman Martin.

We started a process about a 1½ years ago to try and get some voluntary compliance with these issues. We didn't get far enough,

and that's the genesis of the hearing. I would like to know what else we can do to move this process on forward.

We are on the verge of a nationwide crisis that threatens to create, for the first time ever, a generation of kids who will have a shorter life span than their parents. That's a breathtaking statement. That's where we are today. And if we don't start to do something about it, that's where we're going to be, and that's why we have to get at these prevention programs you mentioned.

You had some samples, I've got charts. They're dull, but they do drive the point. The past 30 years, childhood obesity rates have risen nearly 300 percent; from 5 percent in the mid-1970s to over 17 percent of our children are obese in 2004. For children, 2 to 5, it's gone from 5 to nearly 15 percent; for adolescents, it's gone from 6½ to nearly 19 percent; for teenagers, 17.4 percent. Wow. These are very, very troubling figures.

While we all agree that there are myriad of different factors that comprise childhood obesity, we cannot ignore that our children live in a saturated media environment with advertisers eager to make impressions on young minds. A 2004 Kaiser Family Foundation report found that children are exposed to approximately 40,000 advertisements per year. And I want to show that on this next chart.

A 2007 Kaiser Family report found that, in terms of minutes, children ages 2 to 7 see an average of 17 minutes worth of commercials per day; adolescents, 37 minutes; teenagers, 35 minutes. Now, that same report, in the next chart, also showed that, among all TV genres, children's shows have the highest proportion of food ads—50 percent—versus dramas, with 25 percent; sitcoms, with 23; and reality shows, with 16 percent.

The recently released FTC report on marketing food to children and adolescents, found that, in total, \$1.6 billion was spent on food and beverage advertising to children in 2006. You can say, "Well, okay, that maybe neither is good nor bad," but, in the next chart, of that \$1.6 billion, 34 percent of the ads were for candy and snacks—here comes Halloween—28 percent were for cereals, and 10 percent were for fast foods. We simply must do better, and we can do better.

We all know that there are serious long-term health consequences to obesity, including an increased risk for cardiovascular disease, high blood pressure, and type-2 diabetes. In fact—and this, I found just stunning—in July 2008 of this year, the American Academy of Pediatricians said that more children, as young as 8, should be given cholesterol-lowering drugs. As young as 8. According to the Centers for Disease Control and Prevention—we'll hear from them today—almost 60 percent of overweight children had at least one cardiovascular disease risk factor, while 25 percent of overweight children had two or more risk factors. American Heart Association found that more than 6 million children in the United States have nonalcoholic fatty liver disease attributed to overweight or obesity. Six million. Already we have pharmaceutical companies reformatting drugs for children for such health conditions as type-2 diabetes, cardiovascular disease, and hypertension.

Indeed, we have an enormous challenge before us, one I'm hopeful we can address together in an expeditious way, when it works

with our spirit of a free society, but also places the best interests of our Nation's children first.

And toward that end, Mr. Chairman, what I'm looking for, from the testimony for the witnesses today, is, How do we proceed forward with addressing this? This is an enormous problem that's right on us, and we've got to do something about it. And we can't just debate, in our healthcare policy, about who's going to pay the bill, but how do we get out ahead of it? And clearly this is a big one we've got to get out ahead of.

Thank you for holding the hearing.

Senator HARKIN. Thank you, Senator Brownback, for working with us and working together, and our staffs working together on this. I think, again, this crosses party lines, crosses regional lines. I mean, this is a national problem, and I look forward to working with you on this as we move ahead, also. So, I thank you very much.

And I yield to the chairman of the Financial Services and General Government Subcommittee, Senator Durbin.

STATEMENT OF SENATOR RICHARD J. DURBIN

Senator DURBIN. Thank you very much.

I want to thank both Senators Harkin and Brownback for this hearing and ask that my opening statement be placed in the record in its entirety.

I also would like to make a note that we—we had a call to arms on this issue in 2001. A fellow named Eric Schlosser wrote a book called "Fast Food Nation." And if you read it, you couldn't help but realize how life had changed so dramatically, in terms of the way we eat, the way we advertise for the food that is purchased. And it means that generations, since the 1960s, have really been raised in a much different world than some of us at this table. And their notion of what is healthy and what is normal is a lot different than we had, growing up.

I tried to address one small part of this. I thought, well, let's go after something the Federal Government has a special responsibility for. How about school lunches? I started visiting schools, and looking at what they serve, and listening to the menus that are announced on a lot of radio shows back in Iowa and Kansas and Illinois. It's disturbing. You know, choice today is between corndogs and pizza, tater tots on the side, you know, and you start thinking to yourself, "Is this as good as it gets?"

So, we started to try to work out a way to develop school lunches that were healthy, that kids would actually eat. It doesn't do us any good to put out the salad bar and watch the kids go for the tater tots, so we had to figure out how to put this food in front of kids at an age where they start choosing the right thing, and choosing the right amount of the right thing.

It's not easy. Any parent can tell you it's not easy. But it works if you work at it. And we've had a dozen schools in Chicago that have started with salad bars for kindergartners and grade-school kids, and we've started trying to build this appetite for the right kind of foods. We are doing this, against this tidal wave of advertising, which says: supersize carbos and salt and sugar. And it's tough.

But, if we're serious about it at the Federal level, we've got to do more than just complain about advertising. Let's get our own house in order. Let's make the school lunch program and the school breakfast program a model for the Nation. Let's prove that we can put nutritious foods in front of these kids and they'll eat them. But, we're going to have to work at it.

One thing we found, for example, Mr. Chairman, was, milk wasn't that appealing to these kids—they would go for those sugar-filled juices, in a second—unless you put it in the right container. Give them those little jugs, they grab them. It's about packaging and marketing. And I hate to concede that point, because it seems like an unnecessary expense and more plastic in the environment, but, at the end of the day, it worked.

PREPARED STATEMENT

So, we have to start thinking more sensibly about how we move the Federal programs, whether it's the WIC program or the school lunch program. Our feeding—we feed a lot of people in this country through the Federal Government, and we can do a much better job.

I'm glad we're having this hearing. Thank you.

[The statement follows:]

PREPARED STATEMENT OF SENATOR RICHARD J. DURBIN

Chairman Harkin, Senator Brownback, I am pleased to join you today to discuss the important issue of childhood obesity. There's been considerable upheaval in the world the last few days and weeks, but the issue of children's health should always be a priority for us.

I welcome Chairman Martin of the FCC and Commissioner Leibowitz of the FTC, two agencies under the jurisdiction of the Financial Services and General Government Appropriations Subcommittee. I also welcome Dr. Gerberding of the CDC and the witnesses on our second panel, particularly Mark Firestone, Vice President of Illinois-based Kraft Foods.

Childhood obesity in the United States has tripled in the last 40 years, putting children at unprecedented risk for lifetime struggles with an array of chronic diseases. The problem of obesity in America will not be solved overnight. But slowly, we're starting to see adults and children making efforts to be more active and to eat healthier foods.

For example, in 2003, I worked with Illinois schools to provide healthier lunch choices for students. The schools used different strategies to promote better food choices among students. The schools:

- Introduced healthier food choices,
- Changed packaging and pricing,
- Promoted fruits and vegetables, and
- Increased accessibility of school breakfast.

Before the changes, kids could choose between pizza and burgers for lunch—too often their first meal of the day. After the changes, students in 12 different Chicago-area schools had the option of a salad bar with healthy fruits and vegetables or a warm breakfast to start their day.

These small changes made a tremendous impact on kids' food choices. With support from the Robert Wood Johnson Foundation and Action for Healthy Kids, these changes made Illinois schools a model for other schools. Since then, Action for Healthy Kids continues to help schools in Illinois and nationwide to implement changes promoting healthier eating.

It would be a mistake, though, to ignore the rest of the environment kids are growing up in. The environment is a part of the problem—but ultimately it can also be a part of the solution.

Marketing and advertising is inescapable in our day-to-day lives. We're no longer just talking about commercial breaks between kid's cartoons. We're seeing product placement in video games and movies, Internet content flooded with commercial messages, and even ads on cell phones.

The pervasiveness of advertising in America has a huge influence on kids. They simply haven't developed the cognitive skills to tell the difference between adver-

tising and entertainment. As we all know, kids are also more easily persuaded by sophisticated ads, celebrity endorsements, and flashy packaging.

Since the Surgeon General issued a health warning about smoking in 1964, the number of smokers in the United States has decreased by 50 percent. We have taken many steps in our fight against tobacco: looking at what companies are doing, limiting advertisements, providing cessation services, and educating families and communities. A similar comprehensive approach may be useful in our fight against childhood obesity. It is going to take the commitment of government, communities, families, and industry to make a dent in this alarming trend.

Recent industry efforts are encouraging. Several companies have come together with the Better Business Bureau to make commitments to change the way they market food to children.

Kraft and McDonald's, two Illinois companies, have made promising commitments under that initiative to limit advertising to children to only the healthiest foods. I welcome Kraft here today as part of our second panel. I think Kraft and other companies deserve recognition for voluntarily changing the way they do business in the interest of children's health.

Viacom, also a witness before us today, devotes air time to encourage kids to be active. In fact, this Saturday Nickelodeon will actually go completely off the air for 3 hours to encourage kids to get outside and play. Let's all hope for good weather on Saturday!

These efforts are clearly a big step in the right direction. But the question we're here to answer today is—will it be enough to make a difference? How can we work together to make even stronger commitments to limiting kids' exposure to unhealthy messages and promoting healthy lifestyles?

I look forward to hearing our witnesses' testimony today and hearing the views of my colleagues. Thank you.

Senator HARKIN. I'm glad you mentioned the WIC program, because, again, in our reauthorization bill next year, I can tell you that there are forces at work to get white potatoes to put into the WIC program. Be on guard.

Senator DURBIN. Can I mention one? I forgot to mention the Robert Wood Johnson Foundation and Action for Healthy Kids have really been helpful on the school lunch program.

Senator HARKIN. Yeah. Very good.

Well, thank you all very much. As you can see, there is a great deal of interest on our committee and among others on this issue. And I can tell you, just from talking to other Senators and stuff, I know that their—the interest level and the attention is going to be focused very high on this.

So, we have two panels. The first panel, we're honored to have Dr. Julie Gerberding, the head of the Centers for Disease Control and Prevention; Kevin Martin, the Chairman of the Federal Communications Commission; and Mr. Jon Leibowitz, Commissioner of the Federal Trade Commission.

We thank you all for being here. Again, your statements will all be made a part of the record.

I will go in, just, the order I just announced here, so we'll start with Dr. Gerberding, go to Mr. Martin, and then go to Mr. Leibowitz.

And, Dr. Gerberding, welcome again to the subcommittee here—

Dr. GERBERDING. Thank you.

Senator HARKIN [continuing]. Subcommittees, I should say.

STATEMENT OF JULIE GERBERDING, M.D., M.P.H., DIRECTOR, CENTERS FOR DISEASE CONTROL AND PREVENTION, DEPARTMENT OF HEALTH AND HUMAN SERVICES

Dr. GERBERDING. Thank you. It is a privilege to appear in front of both of these committees and to have a chance to address an

issue that's important. And I really thank you all for making this visible, especially when there are so many other important things on your agenda this week. And I especially thank Senator Harkin for his fruits and vegetable program on the desktops of children in school. You know, that's one of our favorite projects.

As a CDC Director, I wake up every morning with one issue on my mind, and that is, Why aren't we the healthiest Nation? We spend the most money, but we're not the healthiest. We're 37th in the world in health, and we spend more than virtually every other developed country to earn that pitifully poor ranking.

One of the reasons why we're not the healthiest is because our children are at high risk for chronic diseases, and they are moving in a direction where, as Senator Brownback said, we may see children whose life expectancies are shorter than our own.

You've presented the statistics already, just showing the percentage of our children who are obese over the past several years. I also want to emphasize that this is not something that affects all children equally. We see health disparities here—significantly greater rates of obesity in children of Mexican-American and African-American origin compared to white children—but all children are affected by this problem.

We have lots of statistics, and we can describe this in great detail, some horrifying statistics about the poor health status of our children. But, I think it's important to think of this as more than statistics; these are about individual children, the children that I see when I visit schools, and the children across America—12 million children, to be exact—who are obese.

If you're an 8-year-old today, you have more than a 30-percent chance of having diabetes in your life. If you are an obese 8-year-old today, you have a 70 percent chance of having a second risk factor for cardiovascular disease, and a 25-percent chance of having a third risk factor for cardiovascular disease. So, we are conditioning our children's health status now at a point where they don't even have a chance to look forward to a healthy life. And it's a national catastrophe and a major reason for our national health shortage.

So, children have poor health and poor health prognosis in America, but what they don't have is the maturity and judgment to make decisions about healthy foods, themselves. You've shown this graphic that reveals the toxic food environment present on our children's television viewing, but this is just a piece of the picture. Children are exposed to these kinds of advertisements on the Internet, and their parents are exposed to them through a variety of channels and media; and, of course, that influences food choices available in the home, as well.

So, we've got our work cut out. And one of the things that CDC is doing is to create a comprehensive approach to children's health. We will be soon rolling out our Children's Health Goal Plan, which lays out what we think are the priorities for action. But, those actions do include, number one, finding the evidence, understanding what is the relationship between advertising choices and obesity; more importantly, what is the effect of changing that and doing something about it?

We also need standards and agreement across all of our government agencies on what constitutes a healthy choice so that we're all identifying and thinking about the same thing. And we can use that consistently across industry and families.

We need regulation. Whether or not that's self-regulation or imposed regulation, I understand, is the big debate and the subject of this committee. But, there's clear indicators that we've got to do more than we're doing, and we need to have those apply not just to the television industry or the food and beverage industry, but across a much broader swath, where children are exposed. And, of course, if we do that, we have to have a means of accountability and enforcement. And, I think, most importantly, we need to have measures of success so that we can see what's working, what isn't working, and act effectively on behalf of our children.

PREPARED STATEMENT

So, from a CDC perspective, I'll just summarize by saying this is job one for our Nation, this is our future. We owe it to our children, and we've got to do a lot more than we've been doing to get this problem under control.

[The statement follows:]

PREPARED STATEMENT OF DR. JULIE L. GERBERDING

Introduction

Distinguished Chairmen, Members of the Committees, thank you for the opportunity to provide this statement for the record for today's hearing on food marketing to youth. I am Dr. Julie Louise Gerberding, Director of the Centers for Disease Control and Prevention (CDC), and Administrator of the Agency for Toxic Substances and Disease Registry (ATSDR), within the U.S. Department of Health and Human Services. My statement provides you with an overview of the obesity epidemic including updated surveillance data on youth overweight and obesity; the role of a healthful diet in obtaining and maintaining healthy weight; the effects of food marketing on youth dietary habits; and a description of CDC's resources to combat the childhood obesity epidemic.

Youth Obesity Epidemic

To understand the extent of the youth obesity epidemic, we need to grasp the trend in youth weight gain over the past few decades. National Health and Nutrition Examination Survey (NHANES) data revealed that between 1976 and 1980 the prevalence of overweight among youth aged 2–5 years was 5 percent, for youth 6–11 years it was 6.5 percent, and for youth aged 12–19 year it was 5 percent. The most recent data available from NHANES (2003–2006) show the prevalence of overweight among America's youth to be 12.4 percent for 2–5 year olds, 17 percent for 6–11 year olds and 17.6 percent for 12–19 year olds. These data point to an alarming rate of obesity among youth in all age groups. To determine whether a child was overweight CDC determined their body mass index (BMI), which is a number calculated from a child's weight and height.

BMI is an accepted screening tool for the initial assessment of body fatness for children, but it is not a diagnostic measure. It is also an acceptable tool to determine overweight status of children and youth at the population level. If a child's BMI was at or above the 95th percentile the child was classified as overweight or at risk for obesity. Recently, however, an expert Committee on Assessment, Prevention and Treatment, of Child and Adolescent overweight and Obesity¹ has recommended classifying children whose BMI is at or above the 95th percentile for age

¹The committee was supported by the American Medical Association, the Health Resources and Service Administration and the Centers for Disease Control and Prevention, to figure out solutions for the growing number of children who are severely overweight. It included representatives from 15 medical societies such as the American Academy of Pediatrics and the National Medical Association.

and gender on the CDC growth charts as obese. This is only a change in the terminology.

Obesity among youth has emotional, social and physical consequences and is associated with early onset of chronic diseases such as arthritis, asthma, type 2 diabetes, and heart disease. In fact, 61 percent of obese children aged 5–10 years old have one or more risk factors for heart disease and 27 percent have two or more risk factors for heart disease. (Freedman DS et al. *Pediatrics* 1999;103:1175–8.)

Further, high childhood BMI is associated with an increased likelihood of adult obesity. Adult overweight and obesity increases the risk of many diseases and chronic health conditions, including coronary heart disease, stroke, type 2 diabetes, and some cancers. In 2001 dollars, obesity-associated annual hospital costs among youth were estimated to have more than tripled from \$35 million in 1979–1981 to \$127 million in 1997–1999. (Wang G and Dietz WH. *Economic Burden of Obesity in Youths Aged 6 to 17 years: 1979–1999*. *Pediatrics*. 2002;109:e81.) In 2000, the total direct and indirect healthcare costs (which include medical costs and days lost because of illness, disability, or premature death) from obesity for all ages was estimated to be \$117 billion. (Wolf, AM, Manson JE, Colditz GA. *The Economic Impact of Overweight, Obesity and Weight Loss*. In: Eckel R, ed. *Obesity: Mechanisms and Clinical Management*. Lippincott, Williams and Wilkins; 2002)

One of the national Healthy People 2010 objectives is to “reduce the proportion of children and adolescents who are overweight or obese” to the target of 5 percent. Not since 1980 has the prevalence of overweight and obesity among youth been at or near this target.

Obesity is often the result of an improper balance between energy/calories consumed (poor diet) and energy expended (physical inactivity). The increasing rate of obesity among the Nation’s youth demonstrates the necessity of engaging in a comprehensive approach focused on policy and environmental changes that help make the healthy choice the easy choice when it comes to nutrition and physical activity. Appropriate policy and environmental changes can be effective in increasing the consumption of fruits and vegetables, increasing physical activity, increasing the initiation and duration of breastfeeding, reducing television viewing, reducing the consumption of sugar sweetened beverages, and reducing calorie dense-nutrient poor food intake.

Role of Healthy Diet

Healthy eating in childhood and adolescence is important for overall healthy growth and development and can prevent health problems such as obesity, dental caries, and iron deficiency anemia as well as positively affect mental acuity and academic performance. The diets of most young people, however, do not meet the recommendations set forth in the Dietary Guidelines for Americans. Of U.S youth aged 12–18, only 39.1 percent meet the total grain recommendation and only 3.4 percent meet the recommendations for whole grain intake. (USDA, *Grain Consumptions by Americans*, Nutrition Insights 32, August 2005.) According to CDC’s National Youth Risk Behavior Survey, in 2007, only 21.4 percent of high school students reported eating five or more servings of fruits and vegetables (when fried potatoes and potato chips are excluded) per day during the past 7 days. Only 14.1 percent drank three or more glasses per day of milk (*Morbidity and Mortality Weekly Report* 2006; 57 SS04; 1–131.)

CDC Efforts to Address Food Marketing to Youth and Childhood Obesity

In 2004, CDC commissioned IOM to conduct a study on food marketing to children. One of the conclusions of the study was that, “public policy programs and incentives do not currently have the support or authority to address many of the current and emerging marketing practices that influence the diets of children and youth.” CDC is exploring options to identify and assess the feasibility of implementing policy and environmental change strategies aimed at both reducing television viewing as well as positively influencing those products that are marketed to youth. CDC is working closely with the Academy for Educational Development (AED) to develop a research plan around marketing to children. Based on recommendations from the IOM committee members, the plan will focus on 8–12 year olds and on vegetables, in particular, because consumption of vegetables is lower than consumption of fruits.

In 2005, CDC created the National Center for Health Marketing in response to communication innovations to revolutionize the way people receive and use health information and interventions to make healthy decisions. To increase the reach and impact of health information by understanding when, where, and how people need it, CDC is exploring the potential for conducting health literacy and content analysis

research on food marketing to youth on television and through other communication channels including the Web, social networks, and new media.

In 2007, CDC and partners launched Fruits & Veggies—More Matters™, a marketing and communication strategy designed to influence healthy dietary choices to replace high calorie dense foods. The National Fruit and Vegetable Alliance, CDC and Produce for Better Health Foundation (PBH) are leading Fruits & Veggies—More Matters™, which is a health initiative that consumers will see in stores, online, at home, and on packaging. It replaces the existing 5 A Day awareness program and will leverage the 5 A Day heritage and success to further inspire and support consumers to eat more fruits and vegetables, showcasing the unrivaled combination of great taste, nutrition, abundant variety, and various product forms (fresh, frozen, canned, dried, and 100 percent juice). It also will build upon the body of science that indicates increased daily consumption of fruits and vegetables may help prevent many chronic diseases.

CDC's School Health Policies and Program Study is a national survey conducted to assess school health policies and practices at the State, district, school, and classroom levels. The 2006 study showed that many schools are taking a leadership role in marketing healthy food options to their students. A majority of the schools in the study gave menus to their students to promote the school nutrition services program (95.6 percent), placed posters or other materials promoting healthy eating practices in the cafeteria area (82.7 percent), included articles about the school nutrition services program in their school publications (68.0 percent), and included nutrition services topics during school-wide announcements (53.3 percent). However, one third of all school districts allowed soft drink companies to advertise soft drinks in school buildings (35.8 percent) and almost half of all school districts allowed soft drink companies to advertise on school grounds, including on the outside of school buildings and on playing fields (46.6 percent). Additionally, less than 25 percent of school districts prohibit schools from advertising for candy, fast food restaurants, or soft drinks on school property.

In addition to these efforts, CDC has a number of initiatives and programs under way to address childhood obesity. They include programs in education, surveillance of youth nutrition behaviors and obesity rates, surveillance of school policies and programs, translation and promotion of effective intervention strategies, and policy and Web-based tools for healthy eating, physical activity, and obesity.

CDC's National Coordinated School Health Program to Improve Physical Activity, Nutrition, and Prevent Tobacco Use Among Youth

CDC provides funding for 22 State education agencies (average award: \$411,000) and 1 tribal government (\$275,000) to help school districts and schools implement a Coordinated School Health Program (CSHP), and, through this approach, increase effectiveness of policies, programs, and practices to promote physical activity, nutrition, and tobacco-use prevention among students.

A CSHP is a planned, organized set of health-related programs, policies, and services coordinated to meet the health and safety needs of K–12 students at both the school district and individual school building levels. CSHP is comprised of multiple components that can influence health and learning. These include physical education; health education; health services; nutrition services; counseling and psychological services; a healthy school environment; family/community involvement; and health promotion for staff. Active coordination is needed to engage school staff, implement district/school priority actions; assess programs and policies; create a plan based on data and sound science; establish goals; and evaluate efforts.

CDC's National Nutrition and Physical Activity Program to Prevent Obesity

CDC is funding 23 States (average award \$750,000) to improve healthful eating and physical activity to prevent and control obesity and other chronic diseases by building and sustaining statewide capacity and implementing population-based strategies and interventions. Funded State programs develop strategies to leverage resources and coordinate statewide efforts with multiple partners to address all of the following principal target areas: increase physical activity; increase the consumption of fruits and vegetables; increase breastfeeding initiation, duration and exclusivity; reduce the consumption of high energy dense foods; decrease the consumption of sugar sweetened beverages; and decrease television viewing.

From individual behavior change to changes in public policy, State efforts aim to engage multiple levels of society including individual, family and community settings. Each State funded by the Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases uses the Social-Ecological Model to more fully understand the obesity problem in that State. This model serves as a reminder to look at all levels of influence that can be addressed to support long-term, healthful

lifestyle choices. State efforts include making policy and environmental changes to encourage access to healthy foods and places to be active, and strengthening obesity prevention and control programs in preschools, child care centers, work sites, and other community settings. All funded States will continue to evaluate their interventions to determine their effectiveness and to guide future efforts.

Supporting Communities through the Steps Program

The Steps Program is a critical part of CDC's national efforts to address the urgent realities of chronic disease and obesity. Since 2003, Steps has supported local communities to implement evidence-based interventions in community-based settings including schools, workplaces, community organizations, health care settings, and municipal [city/county] planning, to achieve local changes necessary to prevent chronic diseases and their risk factors. Special focus has been directed toward populations with disproportionate burden of disease and lack of preventive services. In fiscal year 2008, CDC is supporting 21 communities through cooperative agreements with three States (average award \$1.580 million), five local urban health departments (average award \$1.256 million), and two tribal organizations (average award \$747,000). In addition, CDC is supporting 14 communities through new cooperative agreements with two States, two local urban health departments, and two tribal organizations and 40 additional communities through new cooperative agreements with national organizations.

As part of the new grant strategy, CDC will support 50 Steps Community Grants in fiscal year 2009. Communities will receive funds to spark local-level action, change community conditions to reduce risk factors, establish and sustain state-of-the-art programs, test new models of intervention, create models for replication, and help train and mentor additional communities. Tools, resources, and training will be provided to community leaders and public health professionals to equip these entities to effectively confront the urgent realities of the growing national crisis in obesity and other chronic diseases in their communities.

CDC Surveillance Programs

CDC monitors the Nation's health through surveillance programs in order to accomplish its mission to promote health and quality of life by preventing and controlling disease, injury, and disability.

Through its ongoing National Health and Nutrition Examination Survey, CDC produces nationally representative surveillance data on the prevalence of overweight and obesity among children and adolescents based on measured height and weight, as well as on their physical activity and dietary behaviors. (Additional information available at www.cdc.gov/nchs/nhanes.htm.)

In addition, CDC's biennial Youth Risk Behavior Survey provides national, State, and city data on self-reported height and weight, physical activity, physical education, and dietary behaviors among high school students. (Additional information available at <http://www.cdc.gov/HealthyYouth/yrbs/>)

CDC's School Health Policies and Program Study (SHPPS) is a national survey periodically conducted to assess school health policies and programs of State education agencies and of nationally representative samples of school districts, schools, and physical education and health education classrooms. SHPPS provides national data on what schools are doing in relation to physical education, after school physical activity programs, recess, nutrition education, school food service, and vending machine policies and practices. (Additional information available at <http://www.cdc.gov/HealthyYouth/shpps/>)

CDC's School Health Profiles survey, conducted every other year, tells us about the extent to which schools are implementing physical education, physical activity, and nutrition-related policies and practices in different States and cities. (Additional information available at <http://www.cdc.gov/HealthyYouth/profiles/>)

CDC's Pediatric Nutrition Surveillance System (PedNSS) is a child-based public health surveillance system that describes the nutritional status of low-income U.S. children who attend federally-funded maternal and child health and nutrition programs. PedNSS provides data on the prevalence and trends of nutrition-related indicators. (<http://www.cdc.gov/pednss/index.htm>)

Tools to Help Schools and Community-based Organizations Promote Healthy Eating

CDC has developed, and is continuing to develop, a variety of tools that schools and community based organizations can use to implement policies and practices. Examples include:

- The Guide to Community Preventative Services: Review of Interventions that Support Healthy Weight, which is a systematic review of the effectiveness of selected population-based interventions aimed at supporting healthful weight

- among children, adolescents, and adults; <http://www.thecommunityguide.org/obese/>.
- Guidelines for School and Community Programs to Promote Lifelong Healthy Eating Among Young People that identify the most effective policies and practices schools can implement to help young people adopt and maintain healthy eating habits; <http://www.cdc.gov/mmwr/preview/mmwrhtml/00042446.htm>.
 - CDC's School Health Index for Physical Activity and Healthy Eating, a widely used self-assessment and planning tool, enables schools to identify the strengths and weaknesses of their health promotion policies and programs, develop an action plan for improving student health, and involve teachers, parents, students, and the community in improving school policies and programs; <http://apps.nccd.cdc.gov/shi/default.aspx>.
 - Fit Healthy and Ready to Learn, a school health policy guide, developed by the National Association of State Boards of Education with CDC support, that provides education policymakers and administrators with sample physical activity and nutrition policies and information to support the policies;
 - Making It Happen—School Nutrition Success Stories (MIH), a joint product of CDC and USDA, tells the stories of 32 schools and school districts that have implemented innovative strategies to improve the nutritional quality of foods and beverages offered and sold on school campuses. The most consistent theme emerging from these case studies is that students will buy and consume healthful foods and beverages—and schools can make money from healthful options; <http://www.cdc.gov/healthyyouth/nutrition/Making-It-Happen/about.htm>.
 - The Health Education Curriculum Analysis Tool which is a user-friendly checklist designed by CDC to help schools select or develop curricula based on the extent to which they have characteristics that research has identified as being critical for leading to positive effects on youth health behaviors. The companion Healthy Eating Curriculum Analysis Tool will help school districts promote healthy eating, sound nutrition, and healthy dietary practices based on insights gained from research and best practice, and; <http://www.cdc.gov/HealthyYouth/HECAT/index.htm>.
 - The CDC Program Technical Assistance Manual, was created to serve CDC's State and community partners as they develop, implement, and evaluate an array of nutrition and physical activity initiatives that aim to prevent and control obesity and other chronic diseases.
 - We Can! (Ways to Enhance Children's Activity & Nutrition), a national NIH-supported public education program for reaching parents and caregivers of children ages 8–13 in home and community settings—provides educational materials and activities to encourage healthy eating, increase physical activity, and reduce “screen-time” among youth. NIH and CDC are working together to promote We Can! and CDC's school health tools (e.g., the School Health Index) and resources to partners; nongovernmental organizations; State departments of education and departments of health; schools; and community sites.

I have briefly described the efforts of CDC in this area; we are but one of many programs within the Department of Health and Human Services focusing on this epidemic. For example, CDC is an active member in “Healthy Youth for a Healthy Future,” the Secretary's Childhood Overweight and Obesity Prevention Initiative that is spearheaded by the Acting Surgeon General, Rear Admiral Steven Galson. Uniting programs from across the Department, the Childhood Overweight and Obesity Prevention Council has implemented an action plan that leverages and enhances programs that prevent childhood overweight and obesity. The Council synergizes Department-wide prevention efforts, including community interventions and evaluation, outreach and services, and education and research. The Council's efforts have broadened the reach of individual agency campaigns.

CDC also supports the Surgeon General's Outreach Tour under the “Healthy Youth for a Healthy Future” campaign which is traveling from State to State, meeting with communities to recognize and bring attention to effective prevention programs that motivate organizations and families to work together on this issue. The tour focuses on three themes: Help Children Stay Active, Encourage Health Eating Habits, and Promote Healthy Choices. During the visits, the focus is not only about the importance of childhood overweight and obesity prevention, but also on model healthy behaviors for children of all ages realizing these are significant teaching moments that will help them develop healthy habits to last a lifetime.

Conclusion

No single cause or factor is to blame for the epidemic of obesity among children and adolescents. Indeed, many factors have contributed to the unfavorable trends in physical activity and nutrition that have fueled the obesity epidemic.

We have learned a great deal about effective strategies for promoting physical activity and healthy eating among young people. We know that no one strategy alone will be sufficient to slow or reduce the obesity epidemic. Our chances for success will be greater if we use multiple strategies to address multiple factors that contribute to the imbalance between calorie consumption and physical activity and if we involve multiple sectors of society at the community, State, and national levels.

CDC is committed to doing all that we can to help our young people enjoy good health now and for a lifetime. I thank you for your interest and the opportunity to share information about the childhood obesity epidemic, the importance of good nutrition in combating the epidemic and an overview of CDC's activities. I would be happy to answer your questions.

Senator HARKIN. Thank you very much, Dr. Gerberding, and I look forward to working with you and the CDCP in the next couple of years as we do this healthcare reform, and to make sure that this is up front, a big part, an important part of this healthcare reform that we're talking about.

Now we'll turn to Mr. Martin, the head of the—Chairman of the Federal Communications Commission, the FCC, before we go to the FTC.

Mr. Martin.

STATEMENT OF HON. KEVIN J. MARTIN, CHAIRMAN, FEDERAL COMMUNICATIONS COMMISSION

Mr. MARTIN. Thank you. Good morning, Chairman Durbin, Chairman Harkin, and Senator Brownback. I appreciate the opportunity to speak to you today about this important issue that is facing American families, the impact of media on the rising rate of childhood obesity.

In recent years, the rate of childhood obesity has gone in only one direction, and that is up. And, understandably, the concerns of parents, medical experts, and public officials has risen, as well.

Last September, the Institute of Medicine found that one-third of American children are either obese or at risk for obesity. And this is consistent with the Centers for Disease Control's findings that, since 1980, the number of overweight children ages 6 to 11 has doubled, and the number of overweight adolescents has tripled. Childhood obesity has gone from a national problem to a point of crisis.

Parents, of course, are the first line of defense, but we, in the government and in the industry, must make sure that they have the tools that they need to ensure their children's welfare. As a parent, I already know the enormous influence that media has on our children. Its impact really can't be overstated.

According to Nielsen Media Research for the 2004–2005 season, an average American household has the television turned on more than 8 hours a day, with children watching between 2 and 4 hours every day. And recent studies have found that even the youngest children are exposed to a lot of television. Almost one-half—43 percent—of children under the age of two watch TV every day. According to Kaiser Family Foundation, by the time a child enters the first grade, they will have spent the equivalent of 3 school years in front of the television.

In the Children's Television Act, Congress recognized the unique role television and the media can have on children. Specifically, Congress noted that by the time the average child is 18, he or she will have spent between 10,000 and 15,000 hours watching tele-

vision and will have been exposed to more than 200,000 commercials. Congress also noted that it is well established by scientific research that children are uniquely susceptible to the persuasive messages contained in television advertising.

Given the enormous impact of the media—specifically, television—on children, the Commission, along with Senator Harkin and Senator Brownback, convened the Joint Task Force on Media and Childhood Obesity. The task force sought to bring together government officials, media companies, advertisers, and the food and beverage industry to work on behalf of America's children. I appreciate the leadership of Senators Brownback and Harkin and all my colleagues on the Commission. And I particularly want to recognize the hard work and many hours volunteered by Gary Knell, of Sesame Workshop, who led the task force efforts.

While the task force succeeded in producing some significant voluntary commitments, ultimately it did not reach an agreement on two key issues: one, a uniform standard for what constitutes healthy versus unhealthy foods; and, two, the willingness of most media companies to place any limit on the advertising of unhealthy foods on children's programming.

Several good companies did make significant voluntary commitments. For example, 15 of the largest food companies and manufacturers—beverage manufacturers, including Kraft and Kellogg—agreed to curtail advertising of “unhealthy food” to children under age 12. As described in more detail by some of the other witnesses, although the food and beverage industry have made some significant steps in the right direction, there is no uniform agreement among the companies as to the definition of what constitutes “healthy foods.”

On the media side, Disney and Ion have made the most aggressive commitments. The Disney Company's Healthy Kids Initiative set a new standard for the food served in the Disney parks, they disallowed the licensing of Disney characters to foods that do not meet strict nutritional standards, and they disallowed the promotion of foods on the Disney Channel that do not meet these same standards.

Ion media's Qubo was referred to as the “gold standard” by the children's advocates, for their leadership. Ion has committed to licensing their characters for use with healthy foods, and they agreed to no longer accept advertising for any unhealthy foods targeted at children.

Unfortunately, not all of the participants in the Obesity Task Force were as forthcoming in their effort to protect American children. I was particularly disappointed at the media companies who made no solid commitments in this area. For example, some companies only agreed to limit character usage while leaving a major loophole for special occasions. That leads one to wonder, “What is a special occasion?” May a character that endorses candy or cakes for birthdays, President's Day, Valentine's Day, St. Patrick's Day, Easter, Halloween, Thanksgiving, Christmas, and Hanukkah all be exempted from their voluntary commitment?

Even more troubling was the majority of media companies' refusal to agree to any kind of limit on advertising toward our children. Patty Miller summarizes the majority of media companies as

being, quote, “absent from any attempt to solve this problem, and refusing to play a role in protecting children from the advertising of unhealthy food.”

As a result, all of the public-health and child-advocacy groups have asked Congress to adopt legislation mandating that at least 50 percent of all food advertising to children on broadcast and cable television be devoted to healthy food products.

In the past, Congress has anticipated that children would be particularly susceptible to advertising, and put certain protections in place. Indeed, in the Children’s Television Act, Congress enacted specific limits on the amount of advertising that could be shown during children’s programming. The Children’s Television Act requires that commercial TV broadcasters and cable operators limit the amount of commercials in children’s programming to no more than 10½ minutes per hour on weekends and 12 minutes per hour on weekdays.

Finally, the lack of action by the media industry creates a disincentive for those companies that have volunteered for such limits, like Ion and Kraft. Without a broader commitment from our media companies, these companies are actually put at a competitive disadvantage.

While it was, and always is, my hope that we will not have to resort to actual requirements—and I strongly encouraged the media companies involved in the task force to propose some voluntary limits on advertising targeted at our children—in the end, no widespread voluntary commitment on behalf of the media industry was forthcoming. On the voluntary side, I am left to conclude that, sadly, no limit was even close to being presented.

In reference to Senator Brownback’s comments about wanting to ask what the solution should be, I would highlight that I think that there’s one key ingredient: any remedy must be targeted to both broadcast and cable outlets on the media side. According to a recent Kaiser Family Foundation study, the three ad-supported children’s cable networks have 32 percent of their advertising time dedicated towards advertising for food, compared to only 13 percent of broadcast networks, and they have twice as many ads—8.8 versus 4.8 ads—again, targeted for foods per hour. So, I think that leaves us with the absolute conclusion that any kind of a solution must be comprehensive as you look forward to what the Congress should now be addressing.

PREPARED STATEMENT

Again, I want to thank you all for your leadership on these efforts and your support for the Commission and its attempt on the Childhood Obesity Task Force, and I look forward to working with you all as you go forward to try to improve the health of our children.

[The statement follows:]

PREPARED STATEMENT OF HON. KEVIN J. MARTIN

Good morning, Chairman Durbin, Chairman Harkin, Ranking Member Brownback, Ranking Member Specter, and Members of the Committee.

I appreciate the opportunity to speak to you today about an important issue facing American families; the impact of the media on the rising rate of childhood obesity.

I particularly want to thank Senator Harkin and Senator Brownback for their leadership, support and dedication to these issues.

In recent years the rate of childhood obesity has gone in only one direction—up. Understandably, the concern of parents, medical experts and public officials has risen as well.

Last September, the Institute of Medicine found that one-third of American children are either obese or at risk for obesity. This is consistent with the Center for Disease Control's finding that since 1980 the number of overweight children ages 6–11 has doubled and the number of overweight adolescents has tripled. To quote the American Academy of Pediatrics, the trends of children becoming overweight and inactive “pose an unprecedented burden in terms of children's health as well as present and future health care costs.” Childhood Obesity has gone from a national problem to a point of crisis.

Parents of course are the first line of defense. But we in government and in industry must make sure they have the tools they need to ensure their children's welfare.

A study in the *Journal of the American Dietetic Association* recently outlined two important ways to reduce childhood obesity. The first is that parents should become more aware of children's nutritional needs. And the second, which goes to the heart of this hearing today, is that parents should reduce the amount of time their children spend watching television.

As a parent, I already know the enormous influence the media has on our children. Its impact can't really be overstated. According to Nielsen Media Research (for the 2004–2005 season), an average American Household has the television turned on more than 8 hours a day, with children watching between 2 and 4 hours every day.

And recent studies have found that even the youngest children are exposed to a lot of television. Almost one-half (43 percent) of children under the age of two watch TV every day. One-quarter (26 percent) of these youngest children even have a television in their bedroom.

According to the Kaiser Family Foundation, by the time children enter the first grade, they will have spent the equivalent of three school years in front of the TV.

In the Children's Television Act, Congress recognized the unique role television and the media can have on children. Specifically, Congress noted that, by the time the average child is 18 years old, he or she has spent between 10,000 to 15,000 hours watching television and has been exposed to more than 200,000 commercials. Congress also noted that it is well established by scientific research that children are uniquely susceptible to the persuasive messages contained in television advertising. Indeed, the Kaiser Family Foundation found that children under 6 cannot distinguish between programming content and advertising. In addition, these kids cannot distinguish between marketing messages and their favorite show, especially when the ad campaigns feature favorite TV characters like Sponge Bob. And a report by the Institute of Medicine concluded that there is strong evidence that television advertising influences short-term food consumption patterns in children between the ages of 2 and 11.

Given the enormous impact of the media—specifically television on children, the FCC along with Senators Harkin and Brownback convened the Joint Task Force on Media and Childhood Obesity (the “Task Force”). The “Task Force” sought to bring together government officials, media companies, advertisers and the food and beverage industry to work on behalf of America's children.

I appreciate the leadership of Senators Brownback and Harkin and my colleagues on the Commission, Commissioners Tate and Copps. I also want to thank all of the Task Force participants for dedicating their time, energy and efforts. In particular I want to recognize the hard work and many hours volunteered by Gary Knell of Sesame Workshop who led the Task Force's efforts.

We cannot hope to truly address this problem without the participation of all those involved, the media, advertisers and the food and beverage industry. Indeed, this task force was founded on the notion that we all have a responsibility to promote and protect our children's welfare.

While the Task Force succeeded in producing some significant voluntary commitments aimed at reducing the negative impact of the media on children's eating habits and increasing its positive influence on their behavior, ultimately it did not reach an agreement on two key issues: (1) a uniform standard of what constitutes healthy versus unhealthy foods; and (2) the willingness of most media companies to place any limit on the advertising of unhealthy foods on children's programs.

Several food companies made significant voluntary commitments. For example, fifteen of the Nation's largest food and beverage manufacturers including Kraft Foods and Kellogg agreed to curtail advertising of “unhealthy food” to children under age twelve and others are reformulating current products. As described in more detail

by some other witnesses, although the food and beverage industry have made some significant steps in the right direction there is no uniform agreement among the companies as to the definition of “healthy foods.”

On the media side, Disney and Ion have made the most aggressive commitments. The Disney company’s Healthy Kids Initiative set new standards for the food served in Disney’s parks, disallowed the licensing of Disney characters to foods that did not meet strict nutritional standards and disallowed the promotion of foods on the Disney Channel that do not meet those same standards.

Ion media’s Qubo was referred to as the “gold standard” by children’s advocates for their leadership. Ion has committed to only licensing their characters for use with healthy foods and they agreed to no longer accept advertising for unhealthy food targeted at children.

Several companies took significant steps to limit the licensing of their characters for use to promote unhealthy foods. Companies like Discovery Kids, Cartoon Network and Sesame Workshop announced commitments to license characters only to promote food and beverages that meet specific nutritional standards.

Other media companies agreed to telecast public service announcements promoting healthy lifestyles. I applaud these developments.

Unfortunately, not all participants in the Obesity Task Force were as forthcoming in their efforts to protect American children. I am particularly disappointed in those media companies who made no solid commitments in these areas.

For example, some companies only agreed to limit character usage while leaving a major loop hole for “special occasions.” That leads one to wonder what is a special occasion? May a character then endorse candy or cakes for birthdays, President’s Day, Valentine’s Day, Saint Patrick’s Day, Easter, Halloween, Thanksgiving, Christmas, and Chanukah?

Even more troubling was the majority of media companies refused to agree to any kind of limit on advertising targeted toward our children. Patti Miller summarizes the majority of media companies as being “absent from any attempt to solve this problem” and “refusing to play a role in protecting children from the advertising of unhealthy food. As a result, all of the public health and child advocacy groups have asked Congress to adopt legislation mandating that at least 50 percent of all food advertising to children on broadcast and cable television programming be devoted to healthy food products.

In the past, Congress has anticipated that children would be particularly susceptible to advertising and thus put certain protections in place. Indeed, in the Children’s Television Act, Congress enacted specific limits on the amount of advertising that could be shown during children’s programming. The Children’s Television Act requires that commercial TV broadcasters and cable operators limit the amount of commercials in children’s programs to no more than 10 minutes per hour on weekends and 12 minutes per hour on weekdays.

In the United Kingdom, Ofcom has gone a step further than we have here in the United States. They recently implemented rules targeted at reducing the impact of advertising of high fat, salt and sugar (HFSS) food and beverages to children by banning such ads on children’s television channels. In recent weeks, there has been some question as to whether children are still being exposed to these ads under the existing restrictions. Ofcom is reviewing the rules and will be releasing a report on how they might improve regulations to better accomplish their goals of reducing unhealthy advertising towards children.

Finally, the lack of action creates a disincentive for those companies that have volunteered to such limits, like Ion and Kraft. Without a broader commitment from our media companies, these companies are actually put at a competitive disadvantage.

Conclusion

A study published in the Official Journal of the American Academy of Pediatrics last year found that the overwhelming majority of food product advertisements seen on television were of poor nutritional content. The article stated that “these findings will provide a benchmark against which future research can evaluate the commitments by food companies to change the nature of food advertising directed at America’s children.” As a result we will be able to measure our progress.

While it was—and always is—my hope that we will not have to resort to actual requirements, and I strongly encouraged the media companies to propose some voluntary limitations on advertising targeting our children, in the end no widespread voluntary commitment on behalf of the media industry was forthcoming. On the voluntary side, I am left to conclude that, sadly, no limit was even close to being presented.

Thank you again for your leadership on this issue. I look forward to working with you to improve the health of our children.

Senator HARKIN. Thank you very much, Mr. Martin, for a very profound statement. I've got some things that I'll come back to questioning you on some—very good. Really appreciate it very, very much.

And now we turn to Mr. Leibowitz—Jon D. Leibowitz, Commissioner, Federal Trade Commission.

Mr. Leibowitz.

STATEMENT OF HON. JON D. LEIBOWITZ, COMMISSIONER, FEDERAL TRADE COMMISSION

Mr. LEIBOWITZ. Thank you, Chairman Harkin, Chairman Durbin, Ranking Member Brownback. I am pleased to be here to testify today about childhood obesity and food marketing to children.

As you know, at your request we issued this comprehensive report in July. It is called, "Marketing Food to Children and Adolescents: A Review of Industry Expenditures, Activities, and Self-Regulation." It examines food marketing expenditures, reviews new self-regulatory initiatives, and recommends additional steps.

Simply put, whether or not food and beverage marketers are part of the problem—and in my view, we all share some responsibility—they have to be part of the solution. As you pointed out, Senator Harkin, industry can play an instrumental role in influencing children's food choices and helping to curb the obesity epidemic.

To obtain data for our FTC report, we sent subpoenas to 44 major food, beverage, and fast-food companies. And, as you can see from the charts that are going up, and from the chart that Senator Brownback put up earlier, in 2006 these companies spent approximately \$1.6 billion to advertise to children and adolescents, or almost \$2 billion if we include the cost of toys provided with fast-food children's meals.

Let me go to the second chart.

Our report details what foods were advertised and how they were promoted in 2006, just as industry self-regulatory initiatives were starting up, so it is going to serve as a benchmark to measure future progress.

Perhaps most striking is the fully integrated, cross-platform nature of the campaigns directed to children and teens, and the cross-promotional marketing that links food, drinks, and restaurants with popular entertainment.

Television advertising still dominates landscape, but it is not like what you see in, say, *Mad Men*. Modern ad campaigns carry over to product packaging, displays in supermarkets and restaurants, Internet sites with online advergames, contests, and e-cards to send to friends. New digital media is becoming a major and a very efficient marketing tool.

Our report also assesses industry self-regulatory efforts. In 2006, after we held the workshop with HHS, the Better Business Bureau created the Children's Food and Beverage Advertising Initiative. To date, 15 major food and beverage companies, including one today, have joined and pledged to restrict their child-directed TV, print, and Internet advertising to healthy dietary choices, or to simply stop advertising to children under 12.

In addition, the Alliance for a Healthier Generation secured marketers agreements to stop selling high-calorie foods and drinks in schools—and it sounds like you’re making some progress with nutritional lunches in schools in Illinois, Senator Durbin.

Our report concludes with a list of recommendations. For example, all food marketers should adopt meaningful, nutrition-based standards for promoting their products to children under 12. Those standards should apply to all child-directed marketing, not only to broadcast, print, and Internet advertising, but also to product packaging and other promotions. And media companies should develop their own programs to impose nutritional standards for both the licensing of characters—and, as Chairman Martin pointed out, they are starting to do this—and the advertising placed on children’s programming.

PREPARED STATEMENT

Mr. Chairman, your hearing comes at a propitious moment in the debate over self-regulation and how far it can take us. We are encouraged that some industry members are stepping up to the plate. Still, these promising first efforts need to be expanded and replicated. To that end, we are committed to monitoring industry progress and to issuing a followup report, and we’ll use our subpoena power to do that.

Hopefully, by working together, we can go a long way toward ensuring the healthier future for our young people that all of us want to see.

Thank you, and I’d be happy to answer questions.

[The statement follows:]

PREPARED STATEMENT OF JON D. LEIBOWITZ

INTRODUCTION

Chairman Durbin, Chairman Harkin, Ranking Member Brownback, Ranking Member Specter, and Members of the Subcommittees, I am Jon Leibowitz, Commissioner of the Federal Trade Commission (“FTC” or “Commission”).¹ The Commission is pleased to have this opportunity to provide testimony on our efforts to address childhood obesity. Today, I would like to provide some context to the Commission’s efforts, describe the agency’s various initiatives to advocate for responsible marketing and enhanced self-regulation, and then turn more specifically to a discussion of the Commission’s July 2008 Report to Congress: “Marketing Food to Children and Adolescents: A Review of Industry Expenditures, Activities, and Self-Regulation.”² The full text of the Report has been submitted to the subcommittees for the record.

The Commission believes that this Report will provide an important benchmark for measuring the future progress of self-regulatory initiatives. In addition to describing the state of food marketing to children and adolescents in 2006 and analyzing industry initiatives to date, the Report also sets forth a number of recommendations. For example, the Commission recommends that all companies engaged in marketing food to children limit such marketing to products that meet meaningful, nutrition-based standards and that such standards apply to all forms of advertising and promotion. A good first step would be for all such companies to join the self-regulatory initiative established by the Council of Better Business Bu-

¹ The written statement presents the views of the Federal Trade Commission. My oral testimony and responses to questions reflect my views, and do not necessarily reflect the views of the Commission or any other Commissioner.

² Federal Trade Commission, Marketing Food to Children and Adolescents: A Review of Industry Expenditures, Activities, and Self-Regulation (2008) (2008 Report), available at <http://www.ftc.gov/os/2008/07/P064504foodmktngreport.pdf>. See also Concurring Statement of Commissioner Jon Leibowitz, available at <http://www.ftc.gov/speeches/leibowitz/080729foodmarketingtochildren.pdf>.

reaus.³ In addition, the Commission recommends that the media and entertainment companies develop their own self-regulatory program to impose meaningful nutrition standards for both the licensing of characters and the advertising placed on programming directed to children. After allowing a reasonable time for response to these recommendations, the Commission will issue a follow-up report assessing the extent to which the recommendations have been implemented and identifying what, if any, additional measures may be warranted.

FTC'S AUTHORITY AND HISTORY ON FOOD MARKETING TO CHILDREN

The Federal Trade Commission is the Nation's consumer protection agency and has a broad mandate under Section 5 of the Federal Trade Commission Act to stop deceptive or unfair acts and practices in commerce.⁴ The Commission fulfills this mandate primarily through law enforcement, but also engages in rulemaking, research, policy development, consumer and business education, and promotion of industry self-regulatory initiatives. Issues that relate to health and well-being have always been a priority of our consumer protection mission, and in recent years, the Commission has devoted substantial resources to addressing childhood overweight and obesity.

The prevalence and seriousness of this public health problem have been well documented by the Centers for Disease Control and Prevention (CDC).⁵ The causes of the problem are complex, and there is ongoing vigorous debate over the social and economic factors that may contribute to the problem. Poor city planning that makes it difficult for children to walk or bike ride, cuts in school physical education classes, increased television viewing, computer use, and video gaming, fewer hours of sleep, and more frequent restaurant meals have all been cited as factors. Much of the public attention has naturally focused on what and how much children consume and what types of foods and beverages they are encouraged to eat and drink by marketers.

The Commission has concluded that, at this point, the most effective means of addressing childhood obesity, and particularly the food marketing issue, is through industry initiatives that include vigorous self-regulation.⁶ Under the right circumstances, industry-generated solutions have the potential to address a public health problem of this magnitude quickly, creatively, and flexibly.

For these reasons, the Commission has focused its efforts in recent years on encouraging, guiding, and pushing the private sector in the right direction. We have explored how the food industry can contribute to reversing obesity trends through product and packaging innovations and responsible marketing practices that emphasize healthier food choices for children. The Commission has also looked at ways that the media and entertainment industries can use their considerable creative know-how and strong appeal to children to encourage healthier diets and lifestyles. The FTC has kept a close watch on industry progress and has been candid in its assessments. We are encouraged by what we have seen so far, but we are also recommending that industry take additional steps.

THE 2005 WORKSHOP ON MARKETING, SELF-REGULATION, AND CHILDHOOD OBESITY

The Commission's push for industry solutions to childhood obesity began in July 2005, when the FTC and the Department of Health and Human Services (HHS) jointly convened a 2-day Workshop on Marketing, Self-Regulation, and Childhood

³ See pp. 6–7, *infra*.

⁴ 15 U.S.C. § 45(a).

⁵ According to the CDC, the prevalence of overweight youth has increased about three-fold over the last 25 or 30 years, with 19 percent of children ages 6 to 11 and 17 percent of teenagers 12 to 19 now overweight or obese. The long-term health consequences for these children are serious and include increased risk of cardiovascular disease and increased prevalence of type 2 diabetes. Centers for Disease Control and Prevention, *Obesity and Overweight: Childhood Overweight*, available at <http://www.cdc.gov/nccdphp/dnpa/obesity/childhood/index.htm>.

⁶ In 1978, the Commission embarked on a rulemaking effort to address concerns about marketing of sugary foods to children. In 1980, Congress enacted restrictions that prohibited the Commission from adopting any rule regarding children's advertising that relies on a legal basis that the advertising is unfair under the FTC Act. FTC Improvements Act of 1980, Public Law No. 96–252, Sections 11(a)(1), 11(a)(3), 94 Stat. 374 (1980) (current version codified at 15 U.S.C. § 57a(h)). For this and other reasons, the Commission ultimately terminated the rulemaking proceeding. 46 Fed. Reg. 48,710 (Oct. 2, 1981). An effort by government to ban or restrict food marketing could also face significant constitutional constraints. Any government regulation of truthful commercial speech must pass three tests: (1) there must be a substantial government interest to be achieved by restricting the speech; (2) the regulation must directly advance that interest; and (3) the restriction must be narrowly tailored. *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n*, 447 U.S. 557, 564 (1980).

Obesity.⁷ This event brought together some of the largest food manufacturers and entertainment companies, as well as government officials, health experts, and consumer advocates. The purpose of the workshop was neither to determine the causes of childhood obesity nor to assess blame; rather, the goal was to focus attention on positive initiatives that industry members and others could take to encourage healthier eating and living by the Nation's young people.

The workshop yielded a number of important findings, which are detailed in an April 2006 joint report of the FTC and HHS.⁸ The report identified several steps that food and beverage companies were already taking to respond to childhood obesity, including the introduction of new, lower-calorie products and smaller-portion packages; use of icons and seals to provide simple nutrition information; and an increase in use of popular characters to deliver nutrition and health messages to children.⁹ In addition, two companies¹⁰ had committed to shift their children's advertising to products meeting certain nutrition standards.

The 2006 Report included a series of specific recommendations for the food and media industries. The FTC and HHS called on industry to implement self-regulatory initiatives to change the way food is marketed to children. The agencies also encouraged food marketers to: create more nutritious food choices for children through product innovation and reformulation; expand product packaging efforts to control portion size and calories; explore labeling initiatives to help consumers identify lower-calorie, more nutritious foods; improve the nutritional profile of foods marketed to children; educate consumers about nutrition and fitness; and improve the nutritional quality of foods and beverages sold in schools outside of the meal program. In addition, the 2006 Report recommended that media and entertainment companies incorporate nutrition and fitness messages into programming and revise their practices with respect to licensing popular children's characters for use in food marketing.¹¹

THE 2007 FORUM AND CURRENT ASSESSMENT OF INDUSTRY EFFORTS

In July 2007, the FTC and HHS conducted a follow-up forum to review progress in the implementation of these self-regulatory and educational initiatives.¹² The agencies were encouraged to learn that the 2005 Workshop and 2006 Report had provided a stimulus for many individual company efforts as well as broad industry programs. One notable program is the Children's Food and Beverage Advertising Initiative, established by the Council of Better Business Bureaus (CBBB) and the CBBB's National Advertising Review Council.¹³ To date, 14 of the largest food and beverage companies—estimated to represent more than two-thirds of children's food and beverage television advertising expenditures¹⁴—have joined the Initiative, making pledges that, when fully implemented, will significantly improve the landscape of food marketing to children. Most of these companies have committed either not to direct television, radio, print, and Internet advertising to children under 12 or to limit such advertising to foods that qualify as “healthy dietary choices” by meeting specified nutritional standards, such as limitations on calories, fat, sugar, and sodium and/or providing certain nutritional benefits to children. In addition, the companies have pledged to limit the use of licensed characters to promote “healthy dietary choices” or healthy lifestyles, not to seek product placements in child-directed media, not to advertise food or beverages in elementary schools, and to use only their “healthy dietary choices” in interactive games directed to children.

⁷ Marketing, Self-Regulation, and Childhood Obesity: A Joint Workshop of the Federal Trade Commission and the Department of Health and Human Services (July 14–15, 2005). Agenda and transcript of proceedings available at <http://www.ftc.gov/bcp/workshops/foodmarketingtokids/index.htm>.

⁸ Federal Trade Commission & Department of Health and Human Services, Perspectives on Marketing, Self-Regulation, & Childhood Obesity (2006) (2006 Report), available at <http://www.ftc.gov/os/2006/05/PerspectivesOnMarketingSelf-Regulation&ChildhoodObesityFTCandHHSReportonJointWorkshop.pdf>.

⁹ See *id.* at 11–23.

¹⁰ Kraft Foods, Inc. and PepsiCo, Inc.

¹¹ See 2006 Report at 48–54.

¹² FTC/HHS Forum on Marketing, Self-Regulation, and Childhood Obesity (July 18, 2007). Agenda and transcript of proceedings available at <http://www.ftc.gov/bcp/workshops/childobesity/index.shtml>.

¹³ See About the Initiative, available at www.us.bbb.org/advertisers4healthykids.

¹⁴ That estimate was made with reference to the initial ten program members. Four additional major companies subsequently subscribed to the Initiative. See Press Release, Council of Better Business Bureaus, New Food, Beverage Initiative to Focus Kids' Ads on Healthy Choices; Revised Guidelines Strengthen CARU's Guidance to Food Advertisers (Nov. 14, 2006), available at www.us.bbb.org/advertisers4healthykids (More Information, item 7).

The forum also highlighted another industry program directed specifically at the sale of foods and beverages in schools. Created in 2006 under the auspices of the Alliance for a Healthier Generation, the program brings together several food and beverage companies who have committed to limit the sale of “competitive foods”—those sold outside of the school meal program—to lower-calorie, more nutritious products.¹⁵ Although not yet fully implemented, the program has already begun to have a significant impact, resulting in a 58 percent decrease in total calories for beverages shipped to schools between 2004 and the 2007–08 school year.¹⁶

THE 2008 FOOD MARKETING STUDY AND REPORT

The Commission’s 2008 Report assesses the industry’s self-regulatory initiatives undertaken since our last report and identifies areas where we believe more needs to be done. In addition, this Report provides the results of the agency’s comprehensive study of food and beverage industry marketing expenditures and activities directed to children and adolescents.

Until now, research on food and beverage marketing to children has consisted largely of studies of television advertising and, to a lesser extent, other forms of traditional, measured media. The FTC’s Bureau of Economics, for example, issued a study in 2007 comparing children’s exposure to food advertising on television in 1977 with their exposure in 2004. The study concluded that children’s exposure to food ads had fallen modestly from 6,100 ads seen by children ages 2–11 in 1977, to 5,500 ads in 2004. In 2004, however, children’s ad exposure was more concentrated on children’s programming; about half of the food ads seen by children were during programs in which they were at least 50 percent of the audience, compared to about one quarter of the ads seen in 1977.¹⁷ Although children’s exposure to food advertising on television has remained fairly constant over the past 30 years, marketing to children has become omnipresent, and promotional campaigns have become more integrated because of the Internet, other new electronic media, and the burgeoning of cross-promotions with products, movies, and characters popular with children and teens. Previously, however, there has been little information quantifying children’s exposure to these newer, more integrated marketing venues and techniques.

The FTC’s new study, which was conducted at the request of Congress,¹⁸ addresses not only marketing activities in traditional measured media—television, radio, and print—but also analyzes the Internet and other new media, as well as older, but mostly unmeasured, forms of promotional activities directed to youth. This Report presents a great deal of information not previously collected and not otherwise available to the research community. Significantly, the study analyzes data from 2006—a year just before, or very early in the inception of, industry self-regulatory activities. The Commission believes, therefore, that the study will serve as a benchmark for measuring the future effects of voluntary efforts to reduce the amount or improve the nutritional profile of food and beverage marketing to children.

Study Design and Scope

The study analyzes data from both public and non-public sources to provide a comprehensive picture of expenditures and activities directed toward children and adolescents by 44 food and beverage producers, marketers, and quick-service restaurants (QSRs) in the United States during 2006. Those 44 companies, which provided data in response to compulsory process issued by the Commission, were generally selected based on their status as the top advertisers during children’s programming and as the companies with the largest sales shares for selected food categories. The Commission sought information from these companies for marketing of

¹⁵ See Competitive Foods Guidelines for K–12 Schools and Alliance School Beverage Guidelines, Alliance for a Healthier Generation, available at www.healthiergeneration.org. The Alliance is a partnership of the American Heart Association and the William J. Clinton Foundation.

¹⁶ See American Beverage Association, School Beverage Guidelines Progress Report 2007–2008 (Sept. 2008), available at <http://www.schoolbeverages.com/download.aspx?id=111>.

¹⁷ Children’s Exposure to TV Advertising in 1977 and 2004: Information for the Obesity Debate, FTC Bureau of Economics Staff Report (June 2007), available at www.ftc.gov/os/2007/06/cabecolor.pdf.

¹⁸ The Conference Report (H.R. Rep. No. 109–272 (2005)) for the Commission’s fiscal year 2006 appropriation legislation (Public Law No. 109–108) incorporated by reference language from the Senate Report directing the FTC to submit a report to the Committee regarding: marketing activities and expenditures of the food industry targeted toward children and adolescents. The report should include an analysis of commercial advertising time on television, radio, and in print media; in-store marketing; direct payments for preferential shelf placement; events; promotions on packaging; all Internet activities; and product placements in television shows, movies, and video games. S. Rep. No. 109–88, at 108 (2005).

brands in 11 categories of food products ranging from breakfast cereals, candy, and carbonated beverages, to fruits and vegetables. Companies were required to report their marketing expenditures across 20 categories of promotional activities including traditional media like television, newer media like the Internet and mobile phones, and other promotional techniques like product placement, event sponsorship, character licensing, and in-school marketing. In each category, spending was broken down between activities targeted to children (ages 2–11) and adolescents (ages 12–17). In addition to reporting spending, companies were also asked to provide samples or descriptions of their marketing in various categories.¹⁹

Although the study does not include the entire universe of companies marketing food to children and adolescents, or the entire range of foods promoted to them, the Commission believes that it covers a substantial majority of such expenditures and activities for the relevant time frame. It should provide an accurate picture of the scope and variety of food marketing to American youth in 2006.

Key Findings

The Report provides a detailed breakdown of spending for both children and teenagers for each type of marketing activity and across each food category. It also provides examples and descriptions of the various promotional techniques used by the companies. This testimony will highlight only a few key findings.

Total spending on food and beverage marketing to children and teens (together described as “youth”) by the 44 reporting companies slightly exceeded \$1.6 billion, with approximately \$870 million of that spent on marketing directed to children under 12.²⁰ Not surprisingly, television advertising, one of the more expensive media, accounted for nearly half (46 percent) of the total reported youth-directed marketing expenditures. With a total of \$745 million spent, television advertising ranked at the top of promotional techniques. In-store display materials and packaging ranked second in youth-directed spending at 12 percent (\$195 million), closely followed by in-school marketing at 11 percent (\$186 million).²¹ The Internet and other new media and techniques, such as digital media and viral marketing, represented a combined 5 percent of youth-directed expenditures (\$77 million). Youth-directed premiums were reported as representing only 4 percent of total expenditures (\$67 million).²²

The low level of spending on premiums may seem surprising at first glance. The figure, however, does not tell the whole story because it excludes toys distributed by QSRs with children’s meals—an expense that is recouped by the cost of the meal and thus not reported as a marketing expenditure by the companies. If the cost of QSR toys is added to premium expenditures, this marketing technique jumps from \$67 million to \$427 million, ranking second only to television in youth-directed expenditures.²³

The foods most heavily marketed to all youth were carbonated beverages, restaurant foods, and breakfast cereals, with these three categories comprising 63 percent of all youth-directed spending.²⁴ For children under 12, the top marketed food categories, ranked in order, were breakfast cereals (\$229 million), restaurant food (\$161 million), and snack foods (\$113 million).²⁵ Again, this ranking changes dramatically if the cost of toys included in QSR kids’ meals is added to expenditures for children under 12. With these toys included, QSR food becomes the most heavily marketed category to children, at \$521 million—more than twice that spent in any other food and beverage category.²⁶

¹⁹ Appendix A to the Report describes the research methods in detail and identifies the specific companies, food categories, and promotional activities that were included in the study.

²⁰ 2008 Report, *supra* note 2, at 7. The cost of youth marketing reported here is significantly lower than some previous estimates. There are several reasons for this disparity. Other researchers have not had access to the confidential company financial data obtained by the Commission. Moreover, prior estimates have included advertising directed to children for products other than food and also have included price promotions, which generally are targeted to adults and therefore were not included in the FTC data.

²¹ The FTC defined the in-school marketing category to include the commissions paid to schools and school districts by beverage companies and bottlers pursuant to vending machine contracts. Thus, the majority of the expenditures reported in this category were not for traditional advertising or marketing activities. The Commission included these expenses because the payments afford the companies access to young people in school. We recognize that many schools rely on these payments to support athletic and other school programs.

²² 2008 Report at 8, 12–13.

²³ *Id.* at 8.

²⁴ *Id.* at 10.

²⁵ *Id.*

²⁶ *Id.*

In addition to providing these figures, the Report describes the various ways in which food is marketed to children. A principal finding is that many marketing campaigns are fully integrated, weaving together a sweeping net of repeated product exposure across multiple venues and techniques. A typical campaign, for example, may begin with a child seeing an ad on television. The child is then likely to encounter promotional displays and product packaging at the grocery store or restaurant and perhaps receive a toy or other premium upon purchase of the product. Often, that toy or premium will be tied to a popular movie release, for which there will be additional advertising exposure. The child also might be directed to a website to enter a package UPC or other code to participate in a sweepstakes or earn points toward prizes. Once on the website, the child may interact with the brand through online games or participate in viral marketing by sending an e-card to a friend.

The extensive cross-promotion of food and beverage products with popular movie releases illustrates the integration of marketing methods. The PG-13-rated movie, *Pirates of the Caribbean: Dead Man's Chest*, for example, was released in July 2006.²⁷ Coinciding with the release, food, beverage, and restaurant companies ran cross promotions for QSR meals, frozen waffles, fruit snacks, breakfast cereals, popcorn, lunch kits, candy, and fresh fruit. The food products tied to *Pirates* were promoted by television ads, in-theater ads, Internet “advergaming,” specially marked packaging, and in-store displays and tags for pineapples and bananas. Limited edition line extensions were created, including candy that turned gold in the mouth, fruit snacks in treasure shapes, and frozen waffles stamped with movie images. Promotions also included premiums and prizes like skull-shaped cereal bowls, bandanas, and skull strobe light key chains.²⁸ *Pirates* was just one of approximately 80 films, television programs, and video games used in cross promotion of food and beverages to children and teens in 2006.²⁹

The Report also provides illustrations of many other youth-directed marketing techniques used by the industry. It describes, for example, the variety of methods that the industry uses to market in schools—vending machines, contests, team sponsorship, event advertising, and others. The Report also describes the branding of clothing, toys, and other children’s merchandise with food, beverage, and QSR logos; digital marketing that includes downloadable podcasts, “webisodes,” and ringtones; viral marketing; word-of-mouth marketing that recruits youth as “ambassadors” to hand out product samples and promotional items; event marketing; celebrity endorsements; product placement; philanthropic activities, and more.

Key FTC Recommendations

Drawing from the findings of our study as well as from our assessment of the industry’s progress on self-regulation since our first report, the 2008 Report concludes with several new and stronger recommendations designed to further strengthen and expand on all aspects of the industry’s self-regulatory efforts and company initiatives.

First, the Commission recommends that all food and beverage companies adopt and adhere to meaningful nutrition-based standards for marketing their products to children under 12. A useful first step would be to join the CBBB Initiative. In other words, all companies should take measures to limit their food and beverage promotions directed to children to those for healthier products.

Second, given the integrated nature of most marketing campaigns, the Commission also recommends that these nutrition-based standards be extended beyond television, radio, print, and Internet advertising, to cover the full spectrum of marketing activities to children, including product packaging, advertising displays at the retail site, premium distribution, celebrity endorsements, and other promotional activities.

Third, the Commission also recommends that all companies stop in-school promotion of foods and beverages that do not meet meaningful nutrition-based standards. In addition, all companies that sell “competitive” food or beverage products in schools (outside of the school meal program) should join the Alliance for a Healthier Generation or otherwise adopt and adhere to meaningful nutrition-based standards for foods and beverages sold in schools, such as those recommended by the Institute of Medicine.

²⁷ In October 2006, the Walt Disney Company announced new food guidelines stating that its name and characters would be used only for food products that meet specific nutritional requirements, including limits on calories, fat, and sugar. This and other initiatives by media and entertainment companies are described in the 2008 Report at 78–79.

²⁸ 2008 Report at 37–38.

²⁹ *Id.* at 29–32.

Fourth, the Report contains many other specific recommendations for the food industry, which address the nutritional profile of product offerings, nutrition labeling, healthy messages, and marketing in schools.

Finally, in light of the character licensing and extensive cross promotion of foods with films and children's television programs, the Report also recommends actions by media and entertainment companies. Included among these is a recommendation that media and entertainment companies should consider instituting their own self-regulatory initiative and working with the CBBB in this endeavor.³⁰

Conclusion

The Commission is hopeful that continued and expanded efforts by all stakeholders will yield more progress in addressing the issue of childhood obesity. Going forward, the Commission will continue to monitor developments in this area. In particular, we will be looking at the progress of the food and media industries' self-regulatory initiatives and examining the impact on marketing to children. At an appropriate point in the future, the Commission is committed to issuing a follow-up report assessing the extent to which the recommendations in the 2008 Report have—or have not—been implemented.

On behalf of the Commission, I would like to thank the subcommittees for the opportunity to present testimony on this important topic.

Senator HARKIN. Thank you all very much for your statements. First, Mr. Leibowitz, let me start with you.

Mr. LEIBOWITZ. Sure.

Senator HARKIN. If you look at that chart that both Senator Brownback had and, I think, that Dr. Gerberding had, where it showed the increase in obesity rates among kids, it had a line going up—there were three or four lines there.

Mr. LEIBOWITZ. Uh-huh.

Senator HARKIN. You notice those lines, like this one here—it's odd, isn't it, that they all started a precipitous increase right around 1980, 1981? Now, I remember, back in the 1970s, there was this proposal to regulate advertising to kids. I was in the House at the time. I was on the Agriculture Committee. We had a little bit of it. But, I remember, there was a big hue and cry went up about nanny government and this and that, and I remember those. But then, I kind of forgot about it, because it kind of went away.

Well, what happened was, in 1981 the Congress—the Congress passed a law that took away the authority of the Federal Trade Commission to regulate children's advertising, in this way. Right now, the FTC has the authority to regulate advertising to adults on the basis of deception or unfairness.

Mr. LEIBOWITZ. That is right. We usually do it with our enforcement power by going after deceptive advertisements, but that is exactly right.

Senator HARKIN. But you have both of those—

Mr. LEIBOWITZ. Right.

Senator HARKIN [continuing]. For adults.

Mr. LEIBOWITZ. We do have those, that's right.

Senator HARKIN. But, for kids, only on deception. Now, why is it the FTC has more authority to regulate advertising to me than to my grandkids? Now, that's an interesting statement. But, it is true, is it not, Mr. Leibowitz?

Mr. LEIBOWITZ. It is absolutely correct.

Senator HARKIN. So, therefore, taking it a step further, since they took away—the Congress took away the power of the FTC to

³⁰The complete list of recommendations is set forth in the Executive Summary. 2008 Report at ES-8–ES-11.

regulate advertising to kids based on unfairness, they can only do it on deception. Well, most ads are probably—they're not deceptive, but I would propose this, that a—an ad targeted to a child—and there have been studies that have shown this, that they can't tell the difference between program content and advertising content—that that kind of advertising to children is inherently unfair. Inherently unfair, because they can't distinguish. We have studies that show that. Yet, the Federal Trade Commission, Mr. Leibowitz, if I'm right——

Mr. LEIBOWITZ. You are right.

Senator HARKIN [continuing]. Can't do anything about it.

Mr. LEIBOWITZ. Well, I would say that was the motivation for the rulemakings that we did in the Pertschuk Commission in the late 1970s. It has also, I think, driven what some European countries have done to ban food marketing to children. On the other hand—that is also part of the reason why we have worked so vigorously to use our bully pulpit at the FTC and to push companies to do a better job using self-regulatory measures. We think they have really improved.

You are absolutely right, as you described the history and the restrictions that we are under now. The only other point I would make is probably that even if you regulate in that area, you still have First Amendment concerns, depending on what that regulation is, as Chairman Martin knows. And so, you want to be very, very careful, if you could regulate, about what you would do. And we do think that one of the benefits of self-regulation—and we have seen a lot of progress through the Better Business Bureau initiative, and through the work that the Clinton Foundation and the American Heart Association have done in the schools on beverages. One of the advantages, I would say, of the self-regulatory approach is that you avoid litigation. And if you can get companies to do the right thing, then they do it much more quickly.

But, yes, you described the history of the FTC and of our rule-making initiative very clearly.

Senator HARKIN. I'd also make a note, also, that that precipitous incline also started at about the time that we saw the huge influx of vending machines in our schools. Go back and look at it. That's when it—that's when—and I don't think it's just coincidental, by the way, that the obesity rates and everything else started and has gone up since both of those things took place, this law that we passed and also the influx of——

Mr. LEIBOWITZ. Well, with vending machines——

Senator HARKIN [continuing]. The vending——

Mr. LEIBOWITZ [continuing]. In the schools, again, in the last couple of years, particularly with the Clinton Foundation's involvement, we have seen a lot of progress there to have reduced-calorie juices and diet sodas in the schools, replacing high-calorie drinks.

Senator HARKIN. But, on a case-by-case basis, some—some school districts have done magnificent jobs.

Mr. LEIBOWITZ. That's right.

Senator HARKIN. And others have done it.

Mr. LEIBOWITZ. That's right.

Senator HARKIN. So, it's sort of spotty. But then, from what you said about self-regulation, that's where we've all been headed, to try to get all these companies to do this.

But then, Mr. Martin, as you point out in your statement, that some of these companies agreed to limit character usage, leaving the loophole open for these special occasions that you mentioned in your verbal statement. And then, as you point out in your written statement, even more troubling was, the majority of media companies refused to agree to any kind of limit on advertising targeted toward our children. And then you go on to say that, as a result, all of the public health and child advocacy groups have asked Congress to adopt legislation mandating that at least 50 percent of all food advertising to children on broadcast and cable television programming be devoted to healthy food products. So, you know, yes, as I said, I applaud those companies that have done that.

Mr. MARTIN. Yes.

Senator HARKIN. I mentioned Kraft. There are others. But, I just singled them out because they really were moving ahead and—but, the problem that I saw over the last few years with, really, conscientious companies doing this—and I have examples of this, of other companies coming in and trying to invade their market share. So, the good companies basically are giving up, maybe, some of their market share to those that don't much care about this. As you say, they aren't adhering to this, and so, they come in with, again, the high sugar, high salt, high fat foods, advertising them to kids, to take away from the companies that are doing good things. So, how do we get around this problem?

Mr. MARTIN. Well, the same thing is true even on the media company side, to the extent that any company—or in this case—a company like Ion—that agreed to this kind of a commitment, they're put at a competitive disadvantage in trying to get advertising dollars—

Senator HARKIN. Sure.

Mr. MARTIN [continuing]. So, it has a negative impact on them, as well. So, that's why I would speak more from the media company side of it, which is where the Commission ends up having its regulatory authority, but I would say that I think the voluntary efforts of trying to get them to put limits on their advertising of unhealthy products has probably run its course.

There was no question that over the last 1½ year and a half to 2 years we spent on the task force, the vast majority of media companies were unwilling to place any kind of limit on the advertising of unhealthy products to our children. And that's why I think this is a significant problem, and I think Congress should consider, what limits should be placed on them. And, as I indicated in my testimony, I think that the solution must be one that's comprehensive and involves all media companies.

Senator HARKIN. Well, I'd like to pursue that just a little bit further, but—

Mr. MARTIN. Sure.

Senator HARKIN [continuing]. My time's gone—run way over. And, with that, I'd yield to Senator Brownback.

HEALTH SYSTEMS REPORTS

Senator BROWNBAC. Thank you all, for being here.

Dr. GERBERDING, you've mentioned that we're 37th on health, and yet, we spend the most. What countries are doing the best job, and what practices do you think we should import to help us improve our health?

Dr. GERBERDING. I can answer that generically, and I appreciate what Senator Harkin said about healthcare reform. But, I would like to ask that we think of this as "health system reform," because this kind of health isn't going to happen in the healthcare delivery system, it's going to happen in schools and communities and homes. And I know that's what you mean, but we're trying to really emphasize "health system," not just "healthcare system."

What we can say, in comparison to the other developed countries that are spending far less of their GDP on managing their health, is that they put much more emphasis on things going on in schools, on physical fitness and good nutrition, on environments that support exercising and access to healthy choices. I can't comment specifically on what they're doing about advertising to children, so I would leave that to my colleagues to address.

But, in general, their portfolio of health dollars is invested much differently than ours is. We put our emphasis on end-of-life care, in complex biomedical interventions, they're more willing to spend upstream, where health really happens.

Senator BROWNBAC. So, on school nutrition programs, physical education in school—

Dr. GERBERDING. Absolutely.

Senator BROWNBAC [continuing]. Key items that you look at—

Dr. GERBERDING. Absolutely. They—

Senator BROWNBAC [continuing]. When you look at this chart, here, why the spike in 1980? Chairman Harkin mentioned a couple of things that seem probable. I presume you guys have studied this and you have several factors that you think are likely.

Dr. GERBERDING. Well, we can make correlations. That is the same time at which television viewing increased. There are a lot of things that happened along those same times. The decline in school physical ed programs began in the 1980s as school districts became less and less able to afford those activities. So, there's a confluence of things. But, I think the sharp change at 1981 is highly correlated with the policy change that the Senator mentioned.

Senator BROWNBAC. Either of the other gentlemen—Chairman Martin, same question—are there practices in other countries that would be very helpful if we would do?

Mr. MARTIN. In the United Kingdom, Ofcom has much more direct regulations limiting the advertising of unhealthy products during any children's programming. And they actually—have instituted a series of rules and requirements and regulations restricting that. And they're actually going through a process of reviewing them and seeing if they need even additional restrictions or regulations. But, they've been the most aggressive of any country in trying to actually restrict the advertising of unhealthy foods to children.

Senator BROWNBAC. At up to a certain age, what's the age that they target?

Mr. MARTIN. I think——

I'll have to get back to you, but I thought it was 16, but I'll have to get back to you on the exact age.

Mr. LEIBOWITZ. Yes, we can——

Senator BROWNBAC. Mr. Leibowitz.

Mr. LEIBOWITZ [continuing]. Find that, too.

[The information follows:]

Ofcom targets children under 16 (that is up to and including 15) with respect to the regulations on food advertising. The restrictions apply to ads for foods and drinks that are high in fat, salt, and sugar (HFSS). HFSS ads are not permitted in or around programs made for children and on dedicated children's channels. In addition, they are not permitted in or around programs "likely to be of particular appeal to children aged 4–15." Whether a program has "particular appeal" to those under 16 is determined by a statistical index. If the proportion of children 4–15 watching a program is more than 20 percent higher than their proportion of the general population, the program is defined as having "particular appeal" to that age group. The regulations were phased in and became fully effective January 1, 2009.

Mr. LEIBOWITZ. The Europeans have gone much further than we have in regulating the types of advertisements that children can see, and particularly young children.

But, I would also say this, it is complicated, in the United States, by the First Amendment. Under Central Hudson, which is the major commercial speech case, there is a three-part test, and you have to have substantial government interest, and the regulation has to directly advance that interest, and has to be narrowly tailored. So, it would complicate rulemaking, and it would certainly complicate legislating in this area. That doesn't mean it can't be done, but you would have to be, very careful and cautious if you do it. And, again, that is part of the reason why we have pushed very hard for robust, strong, self-regulatory initiatives.

Senator BROWNBAC. Dr. Gerberding——

Mr. LEIBOWITZ. Plus, the ban.

Senator BROWNBAC. What's that?

Mr. LEIBOWITZ. As Chairman Harkin pointed out, we have a ban on our rulemaking authority here.

Senator BROWNBAC. Would these limitations in media advertising get at the heart of the issue, in your estimation? Or, are these useful, but we need to really get more at school nutrition programs, the health system, physical education? What's your thought?

Dr. GERBERDING. I don't believe there'll be a simple fix. This is going to take a comprehensive set of interventions that involves schools and nutrition and activity. But, the Institute of Medicine has specifically looked at the relationship between advertisement and what children choose to eat, and there's no question that the media influence is strong, that this exposure to this toxic environment really does influence what kids want, what they eat, what they won't eat, and that it is a major influence.

What we don't know is, if we take that away, how much weight change will occur. But, we've seen evidence that when you do reduce exposure to advertisements, that children's weight drops, even if they don't increase their physical activity. So, that's some pretty

direct evidence that there is a logic model here that would suggest that removing this influence would have beneficial health impact.

Senator BROWNBAC. You have direct studies that show that.

Dr. GERBERDING. If you remove the exposure, you see weight loss.

Senator BROWNBAC. Mr. Leibowitz, you're familiar with these studies, as well, and agree with—

Mr. LEIBOWITZ. I am aware of some of these studies. I mean, I defer to the healthcare expert here, the director of CDC. But, yes, we are aware of them.

Senator BROWNBAC. Well, I think that's quite a strong and clear statement. I'm hopeful, actually, that CDC can submit that study, or the citation for those studies, to us so that we can have that.
[The information follows:]

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REDUCING CHILDREN'S TELEVISION VIEWING TO PREVENT OBESITY

(Thomas N. Robinson, MD, MPH)

[AVAILABLE ON THE WEB AT: [HTTP://JAMA-AMA-ASSN.ORG/CGI/REPRINT/282/16/1561](http://JAMA-AMA-ASSN.ORG/CGI/REPRINT/282/16/1561)]

A RANDOMIZED CONTROLLED TRIAL

Context.—Some observational studies have found an association between television viewing and child and adolescent adiposity.

Objective.—To assess the effects of reducing television, videotape, and video game use on changes in adiposity, physical activity, and dietary intake.

Design.—Randomized controlled school-based trial conducted from September 1996 to April 1997.

Setting.—Two sociodemographically and scholastically matched public elementary schools in San Jose, Calif.

Participants.—Of 198 third- and fourth-grade students, who were given parental consent to participate, 192 students (mean age, 8.9 years) completed the study.

Intervention.—Children in 1 elementary school received an 18-lesson, 6-month classroom curriculum to reduce television, videotape, and video game use.

Main Outcome Measures.—Changes in measures of height, weight, triceps skinfold thickness, waist and hip circumferences, and cardiorespiratory fitness; self-reported media use, physical activity, and dietary behaviors; and parental report of child and family behaviors. The primary outcome measure was body mass index, calculated as weight in kilograms divided by the square of height in meters.

Results.—Compared with controls, children in the intervention group had statistically significant relative decreases in body mass index (intervention vs control change: 18.38 to 18.67 kg/m² vs 18.10 to 18.81 kg/m², respectively; adjusted difference -0.45 kg/m² [95% confidence interval (CI), -0.73 to -0.17]; P=.002), triceps skinfold thickness (intervention vs control change: 14.55 to 15.47 mm vs 13.97 to 16.46 mm, respectively; adjusted difference, -1.47 mm [95% CI, -2.41 to -0.54]; P=.002), waist circumference (intervention vs control change: 60.48 to 63.57 cm vs 59.51 to 64.73 cm, respectively; adjusted difference, -2.30 cm [95% CI, -3.27 to -1.33]; P<.001), and waist-to-hip ratio (intervention vs control change: 0.83 to 0.83 vs 0.82 to 0.84, respectively; adjusted difference, -0.02 [95% CI, -0.03 to -0.01]; P<.001). Relative to controls, intervention group changes were accompanied by statistically significant decreases in children's reported television viewing and meals eaten in front of the television. There were no statistically significant differences between groups for changes in high-fat food intake, moderate-to-vigorous physical activity, and cardiorespiratory fitness.

Conclusions.—Reducing television, videotape, and video game use may be a promising, population-based approach to prevent childhood obesity.

INTRODUCTION

The United States has experienced alarming increases in obesity among children and adolescents.[1] However, most available treatments for obese children have yielded only modest, unsustained effects.[2] Consequently, prevention is considered to hold the greatest promise.[3] Unfortunately, most prevention programs that spe-

cifically attempt to reduce fat and energy intake and increase physical activity have been ineffective at changing body fatness.[4] [5] As a result, there is a need for innovative approaches to prevent obesity.

There is widespread speculation that television viewing is one of the most easily modifiable causes of obesity among children. American children spend more time watching television and videotapes and playing video games than doing anything else except sleeping.[6] Two primary mechanisms by which television viewing contributes to obesity have been suggested: reduced energy expenditure from displacement of physical activity and increased dietary energy intake, either during viewing or as a result of food advertising.

Cross-sectional epidemiological studies have consistently found relatively weak positive associations between television viewing and child and adolescent adiposity.[7–21] Prospective studies are less common and have produced mixed results.[7] [14] The consistently weak associations found in epidemiological studies may be due to the measurement error in self-reports of television viewing. As a result, additional epidemiological studies would not be expected to clarify the true nature of this relationship.[22]

A causal relationship can only be demonstrated in an experimental trial, in which manipulation of the risk factor changes the outcome.[23] Therefore, we conducted a randomized, controlled, school-based trial of reducing third- and fourth-grade children's television, videotape, and video game use to assess the effects on adiposity and the hypothesized mechanisms of physical activity and dietary intake. We hypothesized that compared with controls, children exposed to the television reduction intervention would significantly decrease their levels of adiposity.

METHODS

All third- and fourth-grade students in 2 public elementary schools in a single school district in San Jose, Calif, were eligible to participate. Schools were sociodemographically and scholastically matched by district personnel. School principals and teachers agreed to participate prior to randomization. Parents or guardians provided signed written informed consent for their children to participate in assessments and for their own participation in telephone interviews. One school was randomly assigned to implement a program to reduce television, videotape, and video game use. The other school was assigned to be an assessments-only control. Participants and school personnel, including classroom teachers, were informed of the nature of the intervention but were unaware of the primary hypothesis. The study was approved by the Stanford University Panel on Human Subjects in Research, Palo Alto, Calif.

INTERVENTION

To test the specific role of television, videotape, and video game use in the development of body fatness, as well as effects on dietary intake and physical activity, it was necessary to design an intervention that decreased media use alone without specifically promoting more active behaviors as replacements. This was accomplished by limiting access to television sets and budgeting use while simultaneously becoming more selective viewers or players.

The intervention, which was based in Bandura's social cognitive theory,[24] consisted of incorporating 18 lessons of 30 to 50 minutes into the standard curriculum that was taught by the regular third- and fourth-grade classroom teachers. The teachers were trained by the research staff, and the majority of lessons were taught during the first 2 months of the school year. Early lessons included self-monitoring and self-reporting of television, videotape, and video game use to motivate children to want to reduce the time they spent in these activities. These lessons were followed by a television turnoff,[25] during which children were challenged to watch no television or videotapes and play no video games for 10 days. After the turnoff, children were encouraged to follow a 7-hour per week budget. Additional lessons taught children to become "intelligent viewers" by using their viewing and video game time more selectively. Several final lessons enlisted children as advocates for reducing media use. The entire curriculum consisted of approximately 18 hours of classroom time. Newsletters that were designed to motivate parents to help their children stay within their time budgets and that suggested strategies for limiting television, videotape, and video game use for the entire family were distributed to parents.

To help with budgeting, each household also received an electronic television time manager (TV Allowance, Mindmaster, Inc, Miami, Fla). This device locks onto the power plug of the television set and monitors and budgets viewing time for each member of the household through use of personal identification codes. Because it

controls power to the television, it also controls video cassette recorder (VCR) and video game use. Families could request additional units for every television in their homes, at no cost.

OUTCOME MEASUREMENTS

Assessments were performed by trained staff, blinded to the experimental design, at baseline (September 1996) and after the completion of the intervention (April 1997). At each time point, on the same days in both schools, children completed self-report questionnaires on 2 non-Monday weekdays. A research staff member read each question out loud. Classroom teachers did not participate in the assessments. Physical measures were performed during 2 physical education periods at each time point, by the same staff in both schools. Parents were interviewed by telephone at baseline and after the intervention by trained interviewers following a standardized protocol. Parents, children, and teachers were not aware that the primary outcome was adiposity.

Body mass index (BMI), defined as the weight in kilograms divided by the square of the height in meters, was the primary measure of adiposity.[26] [27] Standing height was measured using a portable direct-reading stadiometer and body weight was measured using a digital scale, according to established guidelines.[28] [29] Test-retest reliabilities were high (intraclass Spearman $r > 0.99$ for height, $r > 0.99$ for weight). Triceps skinfold thickness was included as a measure of subcutaneous fat and was measured on the right arm, according to established guidelines.[28] [29] Test-retest reliability was $r > 0.99$ and skinfold thickness was highly correlated with BMI ($r = 0.82$).

Waist and hip circumferences were measured with a nonelastic tape at the level of the umbilicus and the maximal extension of the buttocks, respectively, according to established guidelines.[28] [29] Test-retest reliabilities were $r > 0.99$. Waist and hip circumferences were correlated with BMI ($r = 0.87$, $r = 0.90$, respectively) and triceps skinfold thickness ($r = 0.72$, $r = 0.78$, respectively). The waist-to-hip ratio was calculated as a measure of body fat distribution.

Children reported the time they spent "watching television," "watching movies or videos on a VCR," and "playing video games," separately for before school and after school, "yesterday" and "last Saturday" on the first assessment day, and "yesterday" on the second assessment day. Prior to reading these items, the research staff led children through several participatory time-estimating exercises. This instrument was adapted from a similar instrument previously used in young adolescents with high test-retest reliability ($r = 0.94$).[15]

Parents estimated the amount of time their child spent watching television, watching videotapes on the VCR, and playing video games on a typical school day and on a typical weekend day. Similar items have produced accurate estimates compared with videotaped observation.[30] There was moderate agreement between parent and child reports of children's media use (Spearman $r = 0.31$, $P < .001$ for television viewing; $r = 0.17$, $P = .03$ for videotape viewing; $r = 0.49$, $P < .001$ for video game playing). A previously validated 4-item instrument was used to assess overall household television viewing.[31]

Children and parents also estimated the amount of time the child spent in other sedentary behaviors, including, using a computer, doing homework, reading, listening to music, playing a musical instrument, doing artwork or crafts, talking with parents, playing quiet games indoors, and at classes or clubs (parent-child agreement Spearman $r = 0.16$, $P < .05$).

On both days children reported their previous day's out-of-school physical activities, using a previously validated activity checklist.[32] Responses from the 2 days were averaged and weighted for levels of intensity using standard energy expenditure estimates.[33] Parents estimated the amount of time their child spent in organized physical activities (such as teams or sports classes) and nonorganized physical activities (such as playing sports, bicycling, rollerblading, etc) (parent-child agreement Spearman $r = 0.16$, $P = .05$).

On both days, children completed 1-day food frequency recalls for 60 foods in 26 food categories, based on instruments previously validated in third- through sixth-grade children.[34] [35] High-fat foods were those previously identified as the major contributors of fat in the diets of children[35] and adults,[36] and were identified through focus groups with children, parents, and school lunch personnel. Highly advertised foods included 3 categories representing sugary cereals, carbonated soft drinks, and foods from fast-food restaurants.

Children also reported how often they ate breakfast and dinner in a room with the television turned on during the past week, on 4-point scales ranging from never to every day, and they reported the proportion of time they were eating or drinking

a snack (not including meals) while watching television or videotapes or playing video games, on a 3-point scale. Parents responded to the same questions about their children, reporting the number of days in the last week for meals (parent-child agreement Spearman $r=0.24$, $P=.003$) and the percentage of time for snacking (parent-child agreement Spearman $r=0.02$, $P>.05$).

The maximal, multistage, 20-m, shuttle run test (20-MST) was used to assess cardiorespiratory fitness.[37] The 20-MST has been found to be reliable (test-retest $r=0.73-0.93$),[37] a valid measure of maximum oxygen consumption as measured by treadmill testing ($r=0.69-0.87$),[38- 42] and sensitive to change [2] in children.

STATISTICAL ANALYSIS

Baseline comparability of intervention and control groups was assessed using non-parametric Wilcoxon rank sum tests for scaled variables and 2 tests for categorical variables. As a primary prevention program, the intervention was designed to target the entire sample. Effects were expected and intended to occur throughout the entire distribution of adiposity in the sample-not just around a defined threshold. Thus, for purposes of establishing the efficacy of this intervention, it is most appropriate to compare the full distributions of BMI between intervention and control groups. Therefore, to test the primary hypothesis, accounting for the design with school as the unit of randomization (adjusting for intraclass correlation), a mixed-model analysis of covariance approach was used, with postintervention BMI as the dependent variable; the intervention group (intervention vs control) as the independent variable; and baseline BMI, age, and sex as covariates (SAS MIXED procedure, SAS version 6.12, SAS Institute Inc, Cary, NC).[43] The same analysis approach was used for all secondary outcome variables, triceps skinfold thickness, waist and hip circumferences, waist-to-hip ratio, and measures of dietary intake and physical activity. Each outcome also was tested for intervention by sex and intervention by age interactions. All analyses were completed on an intention-to-treat basis, and all tests of statistical significance were 2-tailed with $\alpha=.05$.

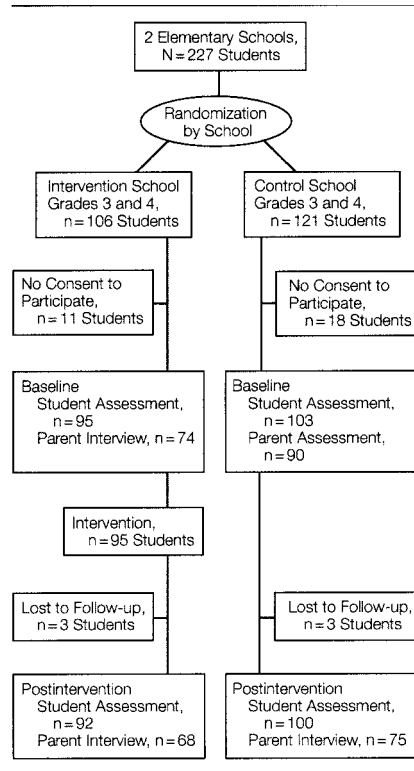
With an anticipated sample size of approximately 100 participants per group and using the above analysis, the study was designed to have 80 percent power to detect an effect size of 0.20 or greater. This corresponded to estimated differences between groups of about 0.75 BMI units, 1.2 mm of triceps skinfold, 1.8 cm of waist circumference, and 2 hours per week of television, videotape, and video game use.

In children of this age, BMI, triceps skinfold thickness, waist circumference, and hip circumference were all expected to increase over the course of the experiment, as part of normal growth, in both the intervention and control groups. Therefore, effect sizes are reported as changes in the intervention group relative to changes in the controls (relative differences). A negative difference is termed a relative decrease in comparison with the controls, even if the actual value increased as a result of normal growth and development.

RESULTS

The study design and participation are shown in Figure 1. Ninety-two (86.8 percent) of 106 eligible children in the intervention school and 100 (82.6 percent) of 121 eligible children in the control school participated in baseline and postintervention assessments. Intervention and control participants, respectively, were comparable in age (mean [SD], 8.95 [0.64] vs 8.92 [0.70] years, $P=.69$), sex (44.6 percent vs 48.5 percent girls, $P=.59$), mean (SD) number of televisions in the home (2.7 [1.3] vs 2.7 [1.1], $P=.56$), mean (SD) number of video game players (systems) (1.5 [2.3] vs 1.2 [1.7], $P=.49$) and percentage of children with a television in their bedroom (43.5 percent vs 42.7 percent, $P=.92$). Physical measures but not self-reports were included in the analysis for 11 children who were classified by their teachers as having limited English proficiency or having a learning disability.

Baseline and postintervention telephone interviews were completed by 68 (71.6 percent) and 75 (72.8 percent) of the parents of participating children in the intervention and control schools, respectively. Intervention school parents reported greater maximum household education levels than participating control school parents (45 percent vs 21 percent college graduates, $P=.01$) but did not differ significantly in ethnicity (80 percent vs 70 percent white, $P=.19$), sex of respondent (82 percent vs 88 percent female, $P=.33$) or marital status (77 percent vs 67 percent married, $P=.22$).

FIGURE 1.—*Study Design and Participant Flow*

PARTICIPATION IN THE INTERVENTION

Teachers reported teaching all lessons, although we did not collect detailed data determining whether the lessons were delivered as they were intended. Ninety-five (90 percent) of 106 students in the intervention school participated in at least some of the television turnoff and 71 (67 percent) completed the entire 10 days without watching television or videotapes or playing video games. During the budgeting phase of the intervention, 58 (55 percent) of the students turned in at least 1 signed parent confirmation that they had stayed below their television and videotape viewing and video game playing budget for the previous week. Forty-four parents (42 percent) returned response cards reporting they had installed the TV Allowance and 29 families (27 percent) requested 1 or more additional TV Allowances.

EFFECTS ON ADIPOSITY

Results of anthropometric measures are presented in Table 1. At baseline, both groups were comparable ($P > .10$) on all baseline measures of body composition. As expected for children of this age, BMI, triceps skinfold thickness, waist circumference, and hip circumference all increased in both intervention and control children during the course of the school year. However, compared with controls, children in the intervention group had statistically significant relative decreases in BMI, triceps skinfold thickness, waist circumference, and waist-to-hip ratio (Table 1). There were no significant interventions by sex or intervention by age interactions for any of the body composition outcomes. The results did not change when ethnicity and parent education were included as additional covariates for children with completed parent interviews.

TABLE 1.—CHILDREN'S ANTHROPOMETRIC MEASURES ¹

	Baseline		Postintervention		Adjusted Change (95% CI) ²	P Value
	Intervention	Control	Intervention	Control		
Body cross index, kg/m ²	18.38 (3.67)	18.10 (3.77)	18.67 (3.77)	18.81 (3.76)	−0.45 (−0.73 to −0.17)	.002
Triceps skinfold thickness, mm	14.35 (6.06)	13.97 (5.43)	15.47 (5.95)	16.46 (5.27)	−1.47 (−2.41 to −0.54)	.002
Waist circumference, cm	60.48 (9.91)	59.51 (8.91)	63.57 (8.96)	64.73 (8.91)	−2.30 (−3.27 to −1.33)	<.001
Hip circumference, cm	72.78 (8.91)	72.70 (8.78)	76.53 (7.94)	76.79 (8.37)	−0.27 (−1.08 to 0.53)	.50
Waist-to-hip ratio	0.83 (0.05)	0.82 (0.05)	0.83 (0.06)	0.84 (0.05)	−0.02 (0.03 to −0.01)	<.001

¹ Baseline and postintervention values are unadjusted mean (SD). At baseline, both groups were comparable (P>.10) on all measures of body composition.

² Change estimates and 95 percent confidence intervals (CIs) are the differences between intervention group and control group after adjustment by mixed-model analysis of covariance for the baseline value, age, and sex.

Although the sample size was insufficient to formally test for effects within subgroups, it was desirable to further characterize the effects of the intervention on participants with varying levels of adiposity, with a descriptive analysis. Intervention and control group changes were compared within strata defined by baseline levels of BMI, triceps skinfold, waist circumference, and waist-to-hip ratio. For all body composition measures, effects of the intervention occurred across the entire distribution of baseline adiposity, with greater intervention vs control differences evident among the middle and higher strata of body fatness.

EFFECTS ON MEDIA USE, DIET, AND PHYSICAL ACTIVITY

Child measures are presented in Table 2 and parent measures are presented in Table 3. Both groups were well matched at baseline, although intervention group children reported eating significantly more meals while watching television, and participating intervention group parents reported significantly less overall household television use and that their children spent significantly more time in other sedentary behaviors at baseline.

TABLE 2.—CHILD MEASURES OF TELEVISION VIEWING, DIET AND PHYSICAL ACTIVITY AND FITNESS¹

	Baseline		Postintervention		Adjusted Change (95% CI) ²	P Value
	Intervention	Control	Intervention	Control		
Hours per week:						
Television	15.35 (13.17)	15.46 (15.02)	8.80 (10.41)	14.46 (13.82)	− 5.53 (− 8.64 to − 2.42)	<.001
Videotapes	4.74 (6.57)	5.52 (10.44)	3.46 (4.86)	5.21 (8.41)	− 1.53 (− 3.39 to 0.33)	.11
Video games	2.57 (5.10)	3.85 (9.17)	1.32 (2.72)	4.24 (10.00)	− 2.54 (− 4.48 to − 0.60)	.01
Meals in front of television, 0–3 scale	2.38 (1.75)	³ 1.84 (1.78)	1.70 (1.49)	1.99 (1.78)	− 0.54 (− 0.98 to − 0.12)	.01
Frequency of snacking in front of the television, 1–3 scale	2.20 (0.56)	2.15 (0.61)	1.94 (0.51)	2.05 (0.59)	− 0.11 (− 0.27 to 0.04)	.16
Daily servings of high-fat foods	6.15 (3.63)	6.62 (5.85)	5.14 (3.50)	6.17 (4.88)	− 0.82 (− 1.87 to 0.23)	.12
Daily serving of highly advertised foods	1.36 (0.96)	1.55 (1.20)	1.47 (1.10)	1.48 (1.06)	0.06 (− 0.24 to 0.36)	.71
Other sedentary behaviors, h/d	4.66 (3.81)	4.47 (6.37)	3.81 (2.66)	4.05 (4.53)	− 0.34 (− 1.21 to 0.52)	.44
Physical activity, metabolic equivalent-weighted, min/wk	396.8 (367.8)	310.2 (250.7)	362.3 (235.2)	337.8 (277.3)	− 16.7 (− 78.6 to 45.3)	.60
20-m shuttle test, laps	15.21 (9.60)	14.80 (8.56)	19.72 (11.40)	18.18 (10.72)	0.87 (− 1.41 to 3.15)	.45

¹Baseline and postintervention values are unadjusted mean (SD).

²Change estimates and 95 percent confidence intervals (CIs) are the differences between groups after adjustment by mixed-model analysis of covariance for the baseline value, age, and sex.

³Groups were significantly different (P<.05) at baseline by a nonparametric Wilcoxon rank sum test.

TABLE 3.—PARENT REPORTS OF CHILDREN'S TELEVISION VIEWING, DIET, AND PHYSICAL ACTIVITY¹

	Baseline		Postintervention		Adjusted Change (95% CI) ²	P Value
	Intervention	Control	Intervention	Control		
Children's hours per week:						
Television	12.43 (5.65)	14.90 (7.10)	8.86 (4.91)	14.75 (7.37)	− 4.29 (− 5.89 to − 2.70)	.001
Videotapes	(4.96) (4.21)	4.41 (3.72)	3.87 (2.87)	3.91 (3.21)	− 0.25 (− 1.19 to 0.69)	.60
Video games	1.84 (2.73)	2.71 (3.78)	1.44 (1.96)	2.57 (4.41)	− 0.76 (− 1.75 to 0.22)	.13
Overall household television use, 0–16 scale	7.09 (3.97)	8.60 (3.51)	6.09 (3.64)	7.76 (3.26)	− 0.77 (− 1.69 to 0.14)	.10
No. of children's meals eaten in front of the television, 0–14 meals	3.18 (3.69)	3.53 (3.71)	2.19 (2.95)	3.43 (3.64)	− 1.07 (− 1.96 to 0.18)	.02
Percentage of children's viewing when snacking	17.28 (20.91)	18.83 (41.24)	19.54 (22.43)	20.25 (22.70)	− 1.94 (− 9.06 to 5.17)	.59
Children's other sedentary behaviors, h/wk	44.89 (19.76)	39.79 (20.27) ³	41.31 (20.89)	43.37 (26.75)	− 4.88 (− 11.69 to 1.93)	.16
Children's physical activity, h/wk	11.19 (7.16)	9.19 (5.77)	16.08 (8.45)	17.21 (9.32)	− 2.00 (− 4.58 to 0.59)	.13

¹Baseline and postintervention values are unadjusted mean (SD).

²Change estimates and 95 percent confidence intervals (CIs) are the differences between groups after adjustment by mixed-model analysis on covariance for the baseline value, age, and sex.

³Groups were significantly different (P<.05) at baseline by a nonparametric Wilcoxon rank sum test.

The intervention significantly decreased children's television viewing, compared with controls, according to both child and parent reports (relative reductions of about one third from baseline). Intervention group children also reported significantly greater reductions in video game use than controls. The intervention also resulted in greater, but not statistically significant, decreases in parent reports of children's video game use, parent and child reports of videotape viewing, and parent reports of overall household television viewing. There were no significant intervention by sex or intervention by age interactions for any of the media use outcomes.

The intervention significantly reduced the frequency of children eating meals in a room with the television turned on. Intervention group children also reported relative reductions in servings of high-fat foods compared with controls, although these differences were not statistically significant. There were no significant intervention effects on reports of children's physical activity levels or performance on the 20-MST of physical fitness. There were no significant intervention by sex or intervention by age interactions for any of the diet or activity outcomes.

COMMENT

This is the first experimental study to demonstrate a direct association between television, videotape, and video game use and increased adiposity. Because the intervention targeted reduction of media use alone, without substituting alternative behaviors, a causal inference might be made.[23] In one previous obesity treatment study, obese children who were reinforced (ie, rewarded) for decreasing sedentary activity (including television viewing and computer games, as well as imaginative play, talking on the telephone, playing board games, etc) along with following an energy-restricted diet lost significantly more weight than obese children reinforced for increasing physical activity or those reinforced for both.[44] Although that study did not directly test the role of television, videotape, and video game use, the similar findings support our results.

This experiment was designed to overcome the dependence of epidemiological studies on error-prone measures of television viewing behaviors by using BMI as the primary outcome. However, the intervention did produce statistically significant decreases in reported television viewing and video game use, compared with controls. Previous studies of reducing children's television viewing have been uncontrolled and limited to a small number of families.[45] [46] [47] This study, therefore, also represents a promising model for studying other hypothesized effects of television and videotape viewing and video game use.

Because this study involved children in only 2 elementary schools, the possibility that the results were due to differences in the groups that were unrelated to the intervention cannot be ruled out completely. This possibility is made less likely, however, because the schools were in a single school district and participants were comparable at baseline on almost all measured variables. In addition, the patterns of the results strengthen the case for causal inference. The crossover patterns of the changes in BMI, triceps skinfold thickness, waist circumference, and waist-to-hip ratio lessen the likelihood of scaling (a "ceiling effect"), regression, and selection-maturation biases as alternative interpretations of the results.[48] [49]

Effects of the intervention on diet and activity were less clear. Compared with controls, children in the intervention group significantly reduced the number of meals they reportedly ate in front of the television set. There were no significant effects on reports of snacking while watching television or intake of high-fat and highly advertised foods. However, because snacking while watching television was assessed as a proportion, even no change in this variable might result in decreased energy intake as total viewing was decreased. Epidemiological studies have found associations among hours of television viewing and children's fat and energy intakes,[15] [50] and experimental studies have shown that food advertising affects children's snack choices and consumption.[51] [52]

Some epidemiological studies have found weak inverse associations between hours of television viewing and physical activity[14] [18] and fitness.[8] [16] Our intervention did not result in a significant change in physical activity or cardiorespiratory fitness. However, because only moderate- and vigorous-intensity activities were assessed, it is also possible that reductions in television viewing resulted in increased energy expenditure via more low-intensity activity. This is consistent with the finding that reductions in television, videotape, and video game use did not result in compensatory increases in other sedentary pursuits. Larger experimental studies and improved measures of diet and activity are needed to more definitively assess the specific mechanisms that account for changes in adiposity in response to reduced television, videotape, and video game use.

With a few exceptions, previous prevention interventions that have attempted to increase physical activity and decrease dietary fat and energy intake have been relatively ineffective at reducing body fatness.[4] [5] In contrast, this intervention targeting only television, videotape, and video game use produced statistically significant and clinically significant relative changes in BMI, triceps skinfold thickness, waist circumference, and waist-to-hip ratio over a period of 7 months. These changes occurred over the entire sample, shifting the entire distribution of adiposity downward. Even a small shift downward in the population distribution of adiposity would be expected to have large effects on obesity-related morbidity and mortality.[53] Additional experimental studies with larger and more sociodemographically diverse samples are needed to evaluate the generalizability of these findings. However, this study indicates that reducing television, videotape, and video game use may be a promising, population-based approach to help prevent childhood obesity.

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A RANDOMIZED TRIAL OF THE EFFECTS OF REDUCING TELEVISION VIEWING AND COMPUTER USE ON BODY MASS INDEX IN YOUNG CHILDREN

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Objective.—To assess the effects of reducing television viewing and computer use on children's body mass index (BMI) as a risk factor for the development of overweight in young children.

Design.—Randomized controlled clinical trial.

Setting.—University children's hospital.

Participants.—Seventy children aged 4 to 7 years whose BMI was at or above the 75th BMI percentile for age and sex.

Interventions.—Children were randomized to an intervention to reduce their television viewing and computer use by 50 percent vs a monitoring control group that did not reduce television viewing or computer use.

Main Outcome Measures.—Age- and sex-standardized BMI (zBMI), television viewing, energy intake, and physical activity were monitored every 6 months during 2 years.

Results.—Children randomized to the intervention group showed greater reductions in targeted sedentary behavior ($P<.001$), zBMI ($P<.05$), and energy intake ($P<.05$) compared with the monitoring control group. Socioeconomic status moderated zBMI change ($P=.01$), with the experimental intervention working better among families of low socioeconomic status. Changes in targeted sedentary behavior mediated changes in zBMI ($P<.05$). The change in television viewing was related to the change in energy intake ($P<.001$) but not to the change in physical activity ($P=.37$).

Conclusions.—Reducing television viewing and computer use may have an important role in preventing obesity and in lowering BMI in young children, and these changes may be related more to changes in energy intake than to changes in physical activity.

Trial Registration.—Clinical trials.gov Identifier: NCT00065052

INTRODUCTION

Television viewing is cross-sectionally and prospectively related to obesity in children.^{1 2} There is limited research assessing the effect of reducing television viewing

¹Dietz, WH, Jr; Gortmaker, SL. Do we fatten our children at the television set? obesity and television viewing in children and adolescents. *Pediatrics.* 1985;75(5):807–812.

²Gortmaker, SL; Must, A; Sobol, AM; Peterson, K; Colditz, GA; Dietz, WH. Television watching as a cause of increasing obesity among children in the United States, 1986–1990. *Arch Pediatr Adolesc Med.* 1996;150(4):356–362.

on the development of obesity.^{3 4 5} School-based interventions have shown that reducing television viewing in third- and fourth-grade students slowed the increase in body mass index (BMI) (calculated as weight in kilograms divided by height in meters squared)³ and that reduction in television viewing was related to success of a multicomponent obesity prevention program.⁴ Reducing television viewing in preschool children was associated with a reduction in parent-reported television viewing, but no changes in BMI were observed.⁵ Little research has involved children aged 4 to 7 years as they transition into their early school years.

Reducing sedentary behavior could affect body weight by modifying energy intake or energy expenditure in several ways. Television viewing is related to consumption of fast food⁶ and foods and beverages that are advertised on television.⁷ Viewing cartoons with embedded food commercials can increase choice of the advertised item in preschoolers,⁸ and television commercials may prompt eating.^{9 10 11} Television viewing or related sedentary behavior may prompt eating by the association of these behaviors with eating, and television viewing and related behavior may impair the development of satiety by interfering with habituation to gustatory and olfactory cues.^{12 13 14 15} Reducing television viewing decreased energy and fat intake in lean adolescents.¹⁶ Television viewing and related sedentary behavior can compete with physical activity, lowering energy expenditure.^{11 17 18} When sedentary behavior is reduced, children may choose to engage in other sedentary behavior or to reallocate time to be more physically active,^{19 20 21 22} although the reallocation depends on child characteristics.²³

The primary objective of this study was to determine the effects of reducing television viewing and computer use on age- and sex-standardized BMI (zBMI) changes

³Robinson, TN. Reducing children's television viewing to prevent obesity: a randomized controlled trial. *JAMA*. 1999;282(16):1561–1567.

⁴Gortmaker, SL; Peterson, K; Wiecha, J, et al. Reducing obesity via a school-based interdisciplinary intervention among youth: Planet Health. *Arch Pediatr Adolesc Med*. 1999;153(4):409–418.

⁵Dennison, BA; Russo, TJ; Burdick, PA; Jenkins, PL. An intervention to reduce television viewing by preschool children. *Arch Pediatr Adolesc Med*. 2004;158(2):170–176.

⁶Taveras, EM; Sandora, TJ; Shih, MC; Ross-Degnan, D; Goldmann, DA; Gillman, MW. The association of television and video viewing with fast food intake by preschool-age children. *Obesity (Silver Spring)*. 2006;14(11):2034–2041.

⁷Utter, J; Scragg, R; Schaaf, D. Associations between television viewing and consumption of commonly advertised foods among New Zealand children and young adolescents. *Public Health Nutr*. 2006;9(5):606–612.

⁸Borzekowski, DL; Robinson, TN. The 30-second effect: an experiment revealing the impact of television commercials on food preferences of preschoolers. *J Am Diet Assoc*. 2001;101(1):42–46.

⁹Jeffrey, DB; McLellam, RW; Fox, DT. The development of children's eating habits: the role of television commercials. *Health Educ Q*. 1982;9(2–3):174–189.

¹⁰Galst, JP. Television food commercials and pro-nutritional public service announcements as determinants of young children's snack choices. *Child Dev*. 1980;51(3):935–938.

¹¹Taras, HL; Sallis, JF; Patterson, PR; Nader, PR; Nelson, JA. Television's influence on children's diet and physical activity. *J Dev Behav Pediatr*. 1989;10(4):176–180.

¹²Epstein, LH; Rodefer, JS; Wisniewski, L; Caggiula, AR. Habituation and dishabituation of human salivary response. *Physiol Behav*. 1992;51(5):945–950.

¹³Epstein, LH; Paluch, R; Smith, JD; Sayette, M. Allocation of attentional resources during habituation to food cues. *Psychophysiology*. 1997;34(1):59–64.

¹⁴Wisniewski, L; Epstein, LH; Caggiula, AR. Effect of food change on consumption, hedonics, and salivation. *Physiol Behav*. 1992;52(1):21–26.

¹⁵Temple, JL; Giacomelli, AM; Kent, KM; Roemmich, JN; Epstein, LH. Television watching increases motivated responding and energy intake in children. *Am J Clin Nutr*. 2007;85(2):355–361.

¹⁶Epstein, LH; Roemmich, JN; Paluch, RA; Raynor, HA. The influence of changes in sedentary behavior on energy and macronutrient intake in youth. *Am J Clin Nutr*. 2005;81(2):361–366.

¹⁷Buchowski, MS; Sun, M. Energy expenditure, television viewing and obesity. *Int J Obes Relat Metab Disord*. 1996;20(3):236–244.

¹⁸DuRant, RH; Baranowski, T; Johnson, M; Thompson, WO. The relationship among television watching, physical activity, and body composition of young children. *Pediatrics*. 1994;94(4 pt 1):449–455.

¹⁹Epstein, LH; Valoski, AM; Vara, LS, et al. Effects of decreasing sedentary behavior and increasing activity on weight change in obese children. *Health Psychol*. 1995;14(2):109–115.

²⁰Epstein, LH; Saelens, BE; O'Brien, JG. Effects of reinforcing increases in active behavior versus decreases in sedentary behavior for obese children. *Int J Behav Med*. 1995;2(1):41–50.

²¹Epstein, LH; Smith, JA; Vara, LS; Rodefer, JS. Behavioral economic analysis of activity choice in obese children. *Health Psychol*. 1991;10(5):311–316.

²²Saelens, BE; Epstein, LH. The rate of sedentary activities determines the reinforcing value of physical activity. *Health Psychol*. 1999;18(6):655–659.

²³Epstein, LH; Roemmich, JN; Paluch, RA; Raynor, HA. Physical activity as a substitute for sedentary behavior in youth. *Ann Behav Med*. 2005;29(3):200–209.

in a sample of children aged 4 to 7 years who were at or above the 75th BMI percentile. Because BMI is positively associated with chronic disease risk factors in children²⁴ and because childhood BMI predicts adult BMI,²⁵ these young at-risk children are an appropriate target group for prevention programs. Secondary aims were to assess the effects of television viewing on energy intake and on energy expenditure. The study was approved by the Social and Behavioral Sciences Institutional Review Board at the State University of New York at Buffalo.

METHODS

Participants

Families were recruited through newspaper advertisements, flyers, and direct mailings targeting families with children aged 4 to 7 years. Inclusion criteria were a child aged 4 to 7 years at or above the 75th BMI percentile for age and sex,²⁶ participation in at least 14 hours of television viewing and computer game playing per week in the primary household, no medical conditions that prevented or interfered with regular physical activity, unlimited access to television or television-related sedentary activities, and family agreement to have television monitoring devices (TV Allowance; Mindmaster Inc, Miami, Florida) attached to every television and computer monitor in the home for the duration of the study.

Procedures

After completing a telephone screen, families attended an orientation, and, if interested, parents read and signed the informed consent and then completed a questionnaire that assessed the numbers of televisions, television video game units, VCR and DVD players, and computers in the home. Approximately 1 week later, a TV Allowance was attached to each television and computer monitor in the home by a research assistant (D.D.W. or J.H.F.), who recorded the numbers of televisions and computers and their locations in the home. The TV Allowance is an automated device that controls and monitors the use of televisions or computer monitors, including television, video game systems, DVD players, VCRs, and computers. The appliance was plugged into the TV Allowance, the plug was locked in, and the device was plugged into the wall. To turn on the television or computer monitor, each family member used an individually selected 4-digit code. To protect against the participating child watching television or playing a computer game on other family members' time, the participating child was not informed of the codes of other family members. If the child learned the codes of another family member, these codes were changed. The TV Allowance sums the minutes of use for each code to objectively determine use of that device.

Baseline television and computer use was measured during a 3-week period. Seventy families met eligibility criteria and were randomized into intervention and control groups (Figure 1). Families were recruited in cohorts, were stratified by child sex, and were randomized by the study statistician (R.A.P.) in blocks of 2 without replacement using a random number generator limited to 2 numbers. Group assignments were provided to the project coordinator (J.L.R.).

²⁴Freedman, DS; Dietz, WH; Srinivasan, SR; Berenson, GS. The relation of overweight to cardiovascular risk factors among children and adolescents: the Bogalusa Heart Study. *Pediatrics*. 1999;103(6 pt 1):1175–1182.

²⁵Whitaker, RC; Wright, JA; Pepe, MS; Seidel, KD; Dietz, WH. Predicting obesity in young adulthood from childhood and parental obesity. *N Engl J Med*. 1997;337(13):869–873.

²⁶Kuczmarski, RJ; Ogden, CL; Guo, SS, et al. 2000 CDC Growth Charts for the United States: methods and development. *Vital Health Stat* 11. 2002;246(246):1–90.

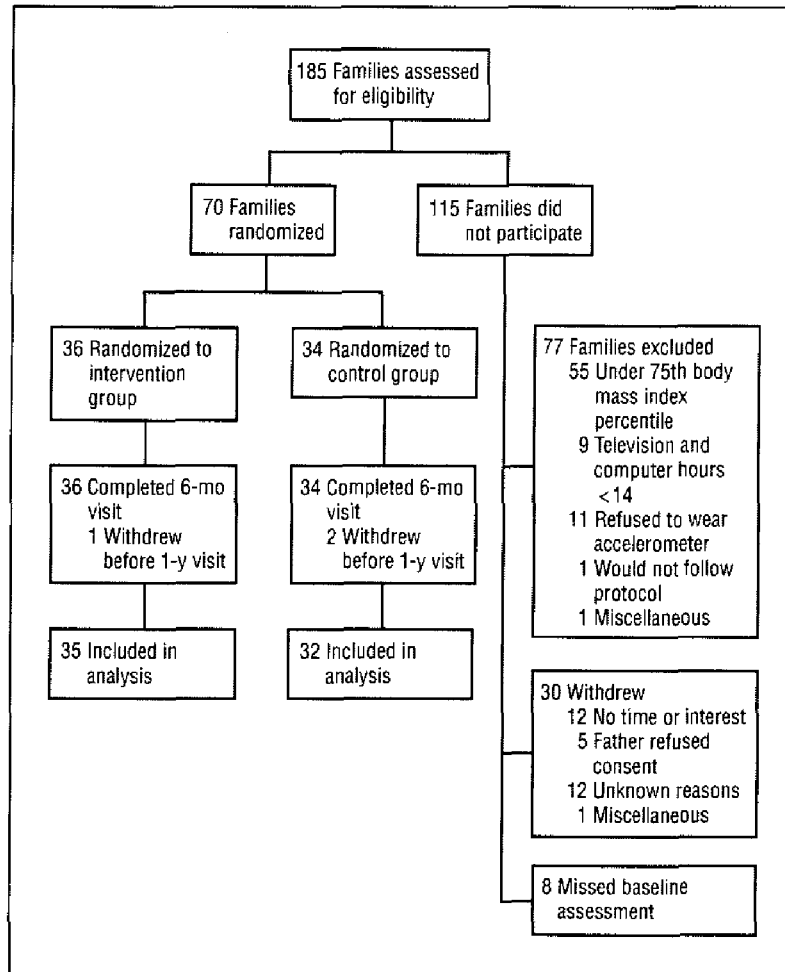


FIGURE 1.—Overview of Study Flow

Study staff (D.D.W. and J.H.F.) set the weekly time budgets for television viewing, computer use, and associated behaviors. Budgets were reduced by 10 percent of their baseline amount per month for children in the intervention group until the budget was reduced by 50 percent. When the budget was reached, the television or computer monitor could not be turned on for the remainder of the week. Study staff could set different amounts of time for each child in a household, if desired, to reduce conflict if another child was not on the program. Parents and non-participating family members could use their code to watch television or to use computers without being on a budget.

Children in the intervention group earned \$.25 for each half hour under budget, up to \$2 per week. Parents were instructed to praise the participating child for reducing television viewing and for engaging in alternative behaviors. Decreases were also reinforced by a star chart. At each home visit, a study staff member reviewed the star chart and praised the child for the number of stickers earned. When the child reached the 50 percent decrease at 6 months, the star charts were discontinued, and changes were supported through monthly newsletters and by parental praise for behavior change. The intervention group received ideas for alternatives

to sedentary behavior, a tailored monthly newsletter with parenting tips to reduce sedentary behavior, and information about how to rearrange the home environment to reduce access to sedentary behavior. Children in the control group were provided free access to television and computers and received \$2 per week for participating, independent of their behavior change. Control families received a newsletter to provide parenting tips, sample praise statements, and child-appropriate activities and recipes.

Measures

Television and computer time were measured using the TV Allowance. Body mass index was calculated based on weight measured using a digital or calibrated balance beam scale and height measured using a calibrated stadiometer. The zBMI was calculated using age- (to the nearest month) and gender-specific median, standard deviation, and power of the Box-Cox transformation (LMS method).²⁶ Physical activity was monitored using an activity monitor (ActiGraph; ActiGraph, LLC, Pensacola, Florida), a unidirectional accelerometer validated for children.^{27 28 29} Physical activity was recorded in 1-minute epochs on 3 randomly selected weekdays from after school until bedtime and all day for 1 randomly selected weekend day. The mean counts per minute during the 4 days was the measure of physical activity. Energy intake (in kilocalories per day) was measured for the month before the assessment using a validated³⁰ 85-item food frequency questionnaire completed by the participating parent. The numbers of televisions, computers, and pieces of exercise equipment were measured by interviews with the participating parent and child, as were the characteristics of the neighborhood environment (including distance in miles to the nearest park or playground, number of activities the child engaged in per week in the neighborhood environment, and perceived safety of the neighborhood on a scale of 1 to 5 [1, unsafe; 5, very safe]). Socioeconomic status (SES) was measured using the Four Factor Index of Social Status by Hollingshead,³¹ which provides a continuous measure based on parental occupation and education.

Data Analysis Plan

t Tests and χ^2 tests were used to assess comparability of groups. Mixed-effects regression models (MRMs) were used to assess zBMI, television viewing, energy intake, and physical activity over time. The MRMs do not assume compound symmetry but use separate estimates of variance at each measurement, which is important because variability often increases as follow-up is extended, and MRMs use all available data.³² The models for targeted sedentary behavior, energy intake, and physical activity included group, SES, and child age and sex as time-invariant fixed effects, as well as a random intercept. Child age and sex were excluded from the zBMI model because the zBMI values were standardized for age and sex. The usual pattern of change in behavioral studies is a decrease during the initial phases of intervention, followed by maintenance of change or relapse. To capture these patterns of change, linear (months) and quadratic (months $\times$ months) interactions with group were tested. Linear and quadratic interactions with group were evaluated for improvement of fit for the overall model by 2-tailed log likelihood tests using 2 df. If adding the quadratic term did not improve the fit of the model, it was not included to test the interaction of group $\times$ months. Group $\times$ months interactions were explored by examining between-group differences from baseline to 6, 12, 18, or 24 months.

Three families moved out of state during the 2-year measurement period, so the primary analysis was based on 67 of 70 families (96 percent). Complete data were available for 66 of 67 families because 1 family withdrew before the 2-year follow-up, but all available data were included in the MRM analysis. The primary analysis was based on families who did not move because families who moved could not be provided with the intervention, as it required implementation of the TV Allowance

²⁷Pate, RR; Baranowski, T; Dowda, M; Trost, SG. Tracking of physical activity in young children. *Med Sci Sports Exerc.* 1996;28(1):92–96.

²⁸Trost, SG; Ward, DS; Moorehead, SM; Watson, PD; Riner, W; Burke, JR. Validity of the Computer Science and Applications (CSA) activity monitor in children. *Med Sci Sports Exerc.* 1998;30(4):629–633.

²⁹Ekelund, U; Sjöström M; Yngve, A, et al. Physical activity assessed by activity monitor and doubly labeled water in children. *Med Sci Sports Exerc.* 2001;33(2):275–281.

³⁰Blum, RE; Wei, EK; Rockett, HR, et al. Validation of a food frequency questionnaire in Native American and Caucasian children 1 to 5 years of age. *Matern Child Health J.* 1999;3(3):167–172.

³¹Hollingshead, AB. Four Factor Index of Social Status. New Haven, CT: Yale University; 1975.

³²Hedeker, D; Gibbons, RD. Longitudinal Data Analysis. Hoboken, NJ: John Wiley & Sons; 2006.

and regular home monitoring. Intent-to-treat MRM analyses were also completed, including the 3 families who moved.

The MRMs were used to evaluate moderators, mediators of outcome, and nonspecific predictors.³³ Moderators are baseline variables that differentially predict outcomes of the groups and were evaluated by the interaction of group $\times$ potential moderator $\times$ months (linear and quadratic models as appropriate). Potential moderators included sex, age, SES, energy intake, physical activity, baseline levels of targeted sedentary behavior, and the numbers of televisions and computers in the home and in the child's bedroom. Moderators were chosen to represent baseline characteristics that could affect change but were not based on specific theoretical hypotheses.

Mediators are variables that differentially change between groups, and the differential change is related to change in the dependent variable. Only time-variant predictors that show between-group differences can be considered mediators, and these were tested by the interaction of group $\times$ potential mediator $\times$ months (linear and quadratic models as appropriate).

Nonspecific predictors are baseline or time variant variables that predict change in the dependent variable but do not interact with the group. Nonspecific predictors included variables assessed as moderators and mediators. The MRMs are particularly useful for studying mediators or nonspecific predictors over time because the MRM allows for time-variant (repeated) measures as independent and dependent variables.

The MRMs were used to estimate the elasticity between changes in television viewing and physical activity or energy intake. Elasticity is an economic construct that represents the relationships between proportional changes in television viewing and physical activity or energy intake. Elasticity coefficients are determined using log values in the regression models.^{34 35} The finding of a statistically significant positive relationship suggests that the 2 behaviors are complements. For example, energy intake would be a complement to television viewing and computer game playing if there was a statistically significant positive relationship between the change in television and computer use and energy intake. The finding of a statistically significant negative relationship suggests that the 2 behaviors are substitutes. Physical activity would be considered a substitute for watching television or playing computer games if physical activity increased in association with a reduction in television viewing and computer game playing.

Sample size estimates were based on research about the effects of reducing sedentary behavior on BMI changes.³ We estimated that with 30 subjects per group we had 80 percent power to detect a standardized effect size (Cohen *d*) of at least 0.23 at a 2-sided α level of .05 for the primary outcome variable of zBMI using a repeated-measures analysis of variance with 5 repeated measures (0, 6, 12, 18, and 24 months). Analyses were performed using commercially available software (SYSTAT 11.0; Systat Software, Inc, Richmond, California).³⁶

RESULTS

There were no statistically significant differences in baseline characteristics among the participants (Table). Fifty-six of 70 children (80 percent) were above the 85th BMI percentile, and 31 of them (44 percent) were above the 95th BMI percentile.

CHARACTERISTICS OF PARTICIPANTS

Characteristic	Control Group (n=34)	Intervention Group (n=36)
Age, mean (SD), y	6.1 (1.3)	5.8 (1.2)
Male to female ratio	18:16	19:17
BMI (SD)	19.1 (3.5)	19.3 (2.5)
Age- and sex-standardized BMI, mean (SD)	1.51 (0.57)	1.69 (0.58)
Television viewing and computer use, mean (SD), h/wk	26.1 (10.1)	24.2 (10.8)
Physical activity counts per min, mean (SD) ¹	783.5 (249.1)	757.0 (256.4)

³³ Kraemer, HC; Wilson, GT; Fairburn, CG; Agras, WS. Mediators and moderators of treatment effects in randomized clinical trials. *Arch Gen Psychiatry*. 2002;59(10):877–883.

³⁴ Epstein, LH; Raja, S; Gold, SS; Paluch, RA; Pak, Y; Roemmich, JN. Reducing sedentary behavior: the relationship between park area and the physical activity of youth. *Psychol Sci*. 2006;17(8):654–659.

³⁵ Epstein, LH; Handley, EA; Dearing, KK, et al. Purchases of food in youth: influence of price and income. *Psychol Sci*. 2006;17(1):82–89.

³⁶ Systat Software, Inc. SYSTAT 11.0. Richmond, CA: Systat Software Inc; 2004.

CHARACTERISTICS OF PARTICIPANTS—Continued

Characteristic	Control Group (n=34)	Intervention Group (n=36)
Energy intake per day, mean (SD), kcal	1,562.6 (474.0)	1,551.4 (515.3)
Socioeconomic status, mean (SD) ²	42.0 (13.0)	44.3 (10.6)
Minority race/ethnicity, No. (%) ³	9/34 (27)	8/36 (22)
Home environment, No. (%):		
Television	2.9 (1.4)	2.9 (1.2)
Computers	1.0 (0.6)	1.1 (0.6)
Pieces of home exercise equipment, mean (SD)	1.4 (1.2)	1.8 (1.1)
Neighborhood environment, mean (SD):		
Blocks to nearest park or playground	3.7 (2.8)	3.3 (2.2)
Activities per wk in the neighborhood	6.6 (3.6)	6.4 (3.8)
Perceived safety on a scale of 1 (safe) to 5 (dangerous)	3.4 (1.5)	3.9 (1.2)

Abbreviation: BMI, body mass index (calculated as weight in kilograms divided by height in meters squared).

¹Based on accelerometer counts per minute.

²Based on parental occupation and education.

³Includes families of Hispanic, African American, Native American, and multiple races/ethnicities.

In the control group, the mean (SEM) number of hours of television viewing and computer games declined by -5.2 (11.1) hours per week at 24 months (Figure 2). In contrast, the mean (SEM) number of hours of television viewing and computer games in the intervention group declined by -17.5 (7.0) hours per week at 6 months and remained about the same through 24 months ($P<.001$ for group $\times$ months interaction). Statistically significant between-group differences ($P<.001$) were observed at 6 through 24 months.

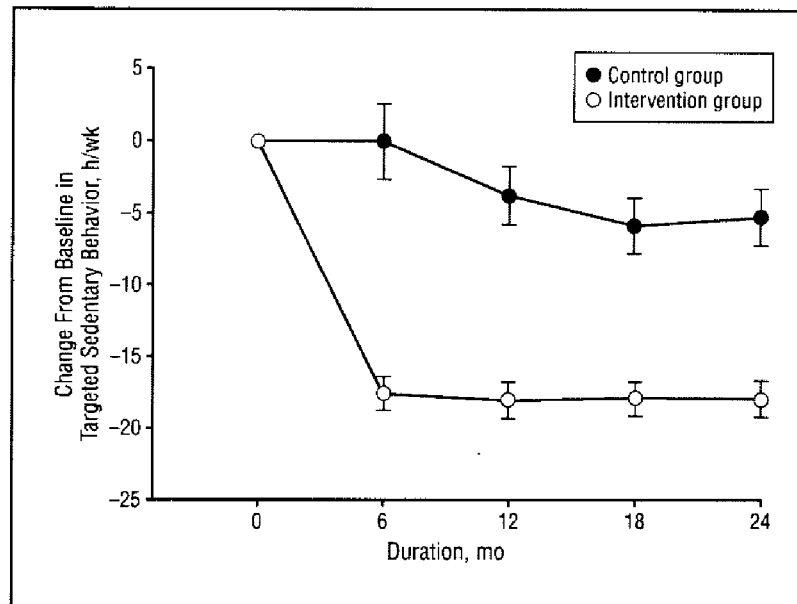


FIGURE 2.—Reduction from baseline in targeted sedentary behavior (television viewing and computer use) for the intervention and control groups over time. A statistically significant difference in the rate of change by group was observed ($P<.001$). Data are given as mean (SEM).

A statistically significant interaction of group $\times$ months was observed for zBMI ($P<.05$), as zBMI decreased a mean (SEM) of -0.24 (0.32) at 24 months for the intervention group, while the control group demonstrated a mean (SEM) zBMI increase of 0.05 (0.29) at 6 months, a return to baseline at 12 months, and a gradual mean (SEM) zBMI decrease of -0.13 (0.37) at 24 months after baseline (Figure 3). Statis-

tically significant between-group differences were observed from baseline to 6 months ($P=.02$) and 12 months ($P=.03$).

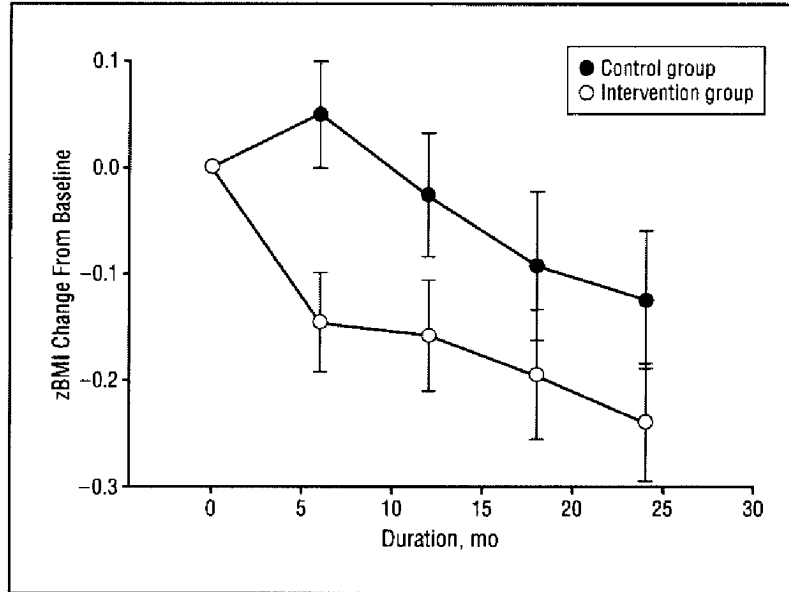


FIGURE 3.—Reduction in age- and sex-standardized body mass index (zBMI) values relative to baseline for the intervention and control groups over time. A statistically significant difference in the rate of change in zBMI by group was observed ($P<.05$). Data are given as mean (SEM).

Energy intake data showed a greater reduction for the intervention group than for the control group ($P<.05$), with statistically significant between-group differences from baseline to 18 months and 24 months ($P=.047$) (Figure 4). No statistically significant between-group changes over time were observed for changes in physical activity, as the control group demonstrated mean (SEM) changes in physical activity counts per minute of 43.7 (302.2), 7.8 (316.9), -23.5 (262.4), and -62.7 (189.7) at 6, 12, 18, and 24 months, respectively, while the intervention group demonstrated mean (SEM) changes in physical activity counts per minute of 36.2 (381.3), 63.7 (288.8), 111.8 (603.0), and 31.4 (275.4) at the same time points, respectively.

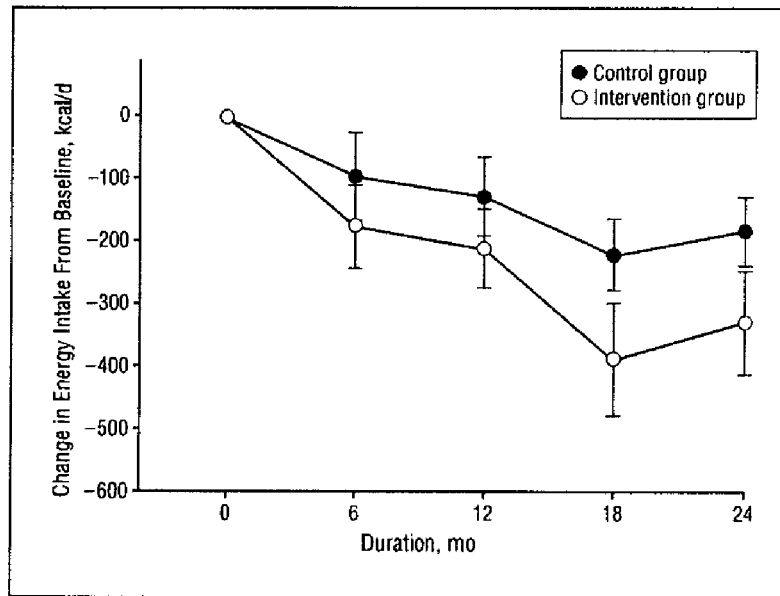


FIGURE 4.—Reduction in energy intake for the intervention and control groups over time. A statistically significant difference in the rate of change in energy intake by group was observed ($P<.05$). Data are given as mean (SEM).

Socioeconomic status was a statistically significant moderator of zBMI change (group $\times$ SES $\times$ months; $P=.01$) (Figure 5). This effect was explored by dividing the sample based on SES into 2 groups at the mean SES and by examining changes in zBMI by group. For the low SES group, statistically significant between-group differences were observed from baseline to 6 months ($P=.002$), 12 months ($P=.02$), 18 months ($P=.04$), and 24 months ($P=.05$), while no statistically significant between-group differences in zBMI change were observed for the high SES group. Television and computer use mediated the effect of group on zBMI values over time (group $\times$ targeted sedentary behavior $\times$ months; $P<.05$). Baseline zBMI was a nonspecific predictor of zBMI change (coefficient, 0.008; $P<.001$), with lower zBMI baseline values associated with greater change. However, care should be used in interpreting the direction of the relationship between baseline zBMI values and zBMI change over time because of the distribution of zBMI values.³⁷ Log changes in targeted sedentary behavior were complemented by log changes in energy intake (coefficient [SE], 0.10 [0.03]; $P<.001$), while physical activity was not a substitute for targeted sedentary behavior (coefficient [SE], -0.03 [0.03]; $P=.37$).

³⁷ Paluch, RA; Epstein, LH; Roemmich, JN. Comparison of methods to evaluate changes in relative body mass index in pediatric weight control. *Am J Hum Biol.* 2007;19(4):487–494.

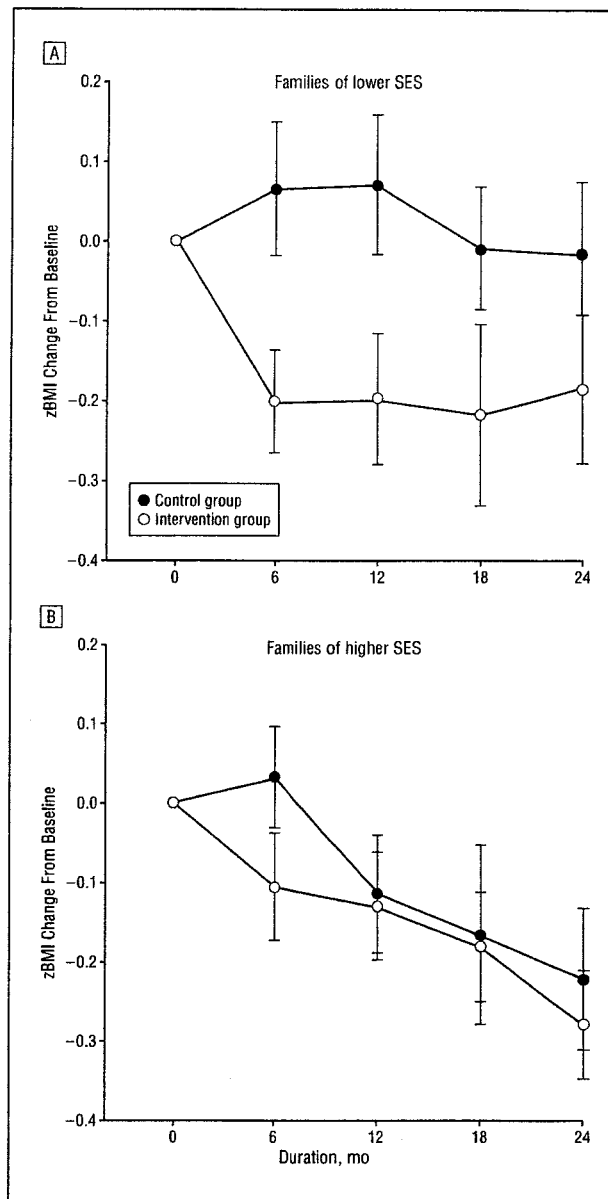


FIGURE 5.—Change in age- and sex-standardized body mass index (zBMI) values relative to baseline for the intervention and control groups over time. A statistically significant difference in the rate of change in zBMI by group for families divided into lower (A) and higher (B) socioeconomic status (SES) was observed ($P=.01$). Data are given as mean (SEM).

COMMENT

This randomized controlled trial showed a statistically significant and sustained reduction in television viewing and computer use that was associated with decreases

in zBMI for children whose BMI was at or above the 75th percentile for age and sex. Results of the mediator analyses suggest that zBMI changes were mediated by targeted sedentary behavior changes. Our findings show that television viewing and computer use can be modified in young children using behavioral engineering technology that provides parental control over a child's screen time budget while giving the child the opportunity to choose how to spend this budget.

The trend for zBMI in the intervention group was a gradual reduction during the 2 years of observation, while the control group demonstrated an increase followed by gradual decreases. Differential changes from baseline to 6 and 12 months were statistically significant. The largest zBMI difference between groups was -0.19 at 6 months, which decreased to -0.13 , -0.10 , and -0.11 at 12, 18, and 24 months, respectively. Although the changes were modest, a small effect of this simple and inexpensive intervention (approximately \$100 for each TV Allowance) magnified across the population may produce important reductions in the prevalence of obesity and obesity-related comorbidities.³⁸

The changes in zBMI were moderated by child SES, with the intervention working best for families of lower SES. Children from families of higher SES showed reductions in zBMI whether they were in the intervention group or the control group. Families of lower SES showed large and sustained zBMI differences between the intervention and control families throughout the 2 years of measurement of -0.17 , -0.20 , -0.17 and -0.26 at 6, 12, 18 and 24 months, respectively. The observation that the intervention worked better for families of lower SES than of higher SES is important because children of low SES are at greater risk of becoming obese adults than children of higher SES.^{39 40} Perhaps families of higher SES were more aware than families of lower SES of information linking television viewing to weight in children, and perhaps families of higher SES had the familial resources and parenting skills needed to modify television viewing without use of the TV Allowance. No differences in family characteristics between groups of lower SES vs higher SES were found, including no differences in the breakdown among families of minority races/ethnicities in the lower (22.6 percent) and higher (22.2 percent) SES groups. Future research should explore differences between SES groups that may mediate these effects.

Changes in energy intake, but not changes in physical activity, were differentially related to changes in the targeted sedentary behavior. Reducing television viewing could affect energy intake by minimizing cues to eat and by decreasing exposure to television advertising.^{6 7 8 9 10 11} Patterns of change in energy intake¹⁶ and physical activity²³ were consistent with findings of experimental research in which targeted sedentary behavior was modified in older children. If the intervention works primarily by complementary changes in energy intake, then youth who eat while watching television would benefit more from the intervention. Previous research showed that decreases in energy intake were not observed for youth who infrequently ate in association with television viewing, while a decrease in energy intake of more than 600 kcal was observed for youth who ate in association with television viewing for at least 50 percent of their eating episodes.¹⁶ Television viewing reduction technology can also be used as part of a comprehensive obesity treatment program.^{19 41} The association of television viewing with eating supports the need to explore the reduction of television advertising as a way to avoid overeating and obesity in youth.⁴²

The behavioral engineering technology of the TV Allowance may simplify the modification of child television viewing. It is possible that family rules regarding television viewing could have similar effects, but there may be important differences in technology vs parental control. Using technology to modify television viewing eliminates parental vigilance needed to enforce family rules and reduces the disciplinary action needed if a child exceeds his or her sedentary behavior limits. Perhaps most important, the device puts the choice of when to watch television in the child's control, as opposed to a rule such as no television time until homework is completed. Although the TV Allowance and family rules can reduce sedentary behavior, there

³⁸ Rose, G. Strategy of prevention: lessons from cardiovascular disease. *Br Med J (Clin Res Ed)*. 1981;282(6279):1847-1851.

³⁹ Parsons, TJ; Power, C; Logan, S; Summerbell, CD. Childhood predictors of adult obesity: a systematic review. *Int J Obes Relat Metab Disord*. 1999;23(suppl 8):S1-S107.

⁴⁰ Janssen, I; Boyce, WF; Simpson, K; Pickett, W. Influence of individual- and area-level measures of socioeconomic status on obesity, unhealthy eating, and physical inactivity in Canadian adolescents. *Am J Clin Nutr*. 2006;83(1):139-145.

⁴¹ Epstein, LH; Paluch, RA; Gordy, CC; Dorn, J. Decreasing sedentary behaviors in treating pediatric obesity. *Arch Pediatr Adolesc Med*. 2000;154(3):220-226.

⁴² Caraher, M; Landon, J; Dalmeny, K. Television advertising and children: lessons from policy development. *Public Health Nutr*. 2006;9(5):596-605.

may be child differences in the perception of control that may relate to intervention effectiveness.

The TV Allowance was placed on all televisions and computers in the home. Without this technology, there would be additional parental demands to monitor use, especially in the case of televisions in children's bedrooms. Placement of a television in a child's bedroom may increase the risk of obesity more than televisions in family spaces⁴³ and may make parental monitoring difficult.⁴⁴

The intervention used in children aged 4 to 7 years is applicable to older children. It has previously been shown that the TV Allowance can be used to reduce home television viewing and computer use among older children and adolescents just as among younger children in the present study.^{3 16 45 46} A major difference is that older children may have more opportunities to visit friends and to accumulate additional television viewing and computer use at friends' homes.

This study included children who were at or above the 75th BMI percentile; therefore, the results cannot be generalized to the prevention of at-risk children who were less overweight. Data on use of the television and computer, such as to entertain children or for educational purposes, may provide insight into how reducing television and computer use moderated the effects of the intervention among families of lower SES. There were limitations to the measurement of television viewing and energy intake. The TV Allowance accumulates television time until it is reset but does not provide downloadable information about when the television is watched. Energy intake data were collected using a food frequency questionnaire that assesses eating during the past month. Food diaries would be more labor intensive for subjects, but they would provide a detailed assessment of how television viewing affects behaviors that influence energy balance and body weight.

These results show that changes in the home environment may be important targets for reducing BMI in children and that the home environment as arranged by parents may contribute to the risk of pediatric obesity.⁴⁷ In addition to complementary changes in energy intake that may accompany reductions in television viewing,¹⁶ an environment in which parents provide easy access to fruits and vegetables is related to children's fruit and vegetable consumption,⁴⁸ and parent and sibling models can maximize occasions to teach healthy eating habits to young children.⁴⁹ There may be unique advantages to environmental manipulations that modify the shared family environment, including television and computer use, in which children develop positive behaviors that provide the basis for lifetime good eating and physical activity habits and a healthy body weight.

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⁴³ Dennison, BA; Erb, TA; Jenkins, PL. Television viewing and television in bedroom associated with overweight risk among low-income preschool children. *Pediatrics*. 2002;109(6):1028–1035.

⁴⁴ Robinson, JL; Winiewicz, DD; Fuerch, JH; Roemmich, JN; Epstein, LH. Relationship between parental estimate and an objective measure of child television watching. *Int J Behav Nutr Phys Act*. 2006. [May 3, 2007]. p. e43. <http://www.ijnpa.org/content/3/1/43>.

⁴⁵ Ford, BS; McDonald, TE; Owens, AS; Robinson, TN. Primary care interventions to reduce television viewing in African-American children. *Am J Prev Med*. 2002;22(2):106–109.

⁴⁶ Robinson, TN; Killen, JD; Kraemer, HC, et al. Dance and reducing television viewing to prevent weight gain in African-American girls: the Stanford GEMS pilot study. *Ethn Dis*. 2003;13(1 suppl 1):S65–S77.

⁴⁷ Davison, KK; Birch, LL. Obesogenic families: parents' physical activity and dietary intake patterns predict girls' risk of overweight. *Int J Obes Relat Metab Disord*. 2002;26(9):1186–1193.

⁴⁸ Baranowski, T; Cullen, KW; Baranowski, J. Psychosocial correlates of dietary intake: advancing dietary intervention. *Annu Rev Nutr*. 1999;19:17–40.

⁴⁹ Harper, LV; Sanders, KM. The effect of adults' eating on young children's acceptance of unfamiliar foods. *J Exp Child Psychol*. 1975;20(2):206–214.

ioral Medicine Laboratory, Department of Pediatrics, School of Medicine and Biomedical Sciences, State University of New York at Buffalo (Dr. Roemmich).

Senator BROWNBACK. One final question, and I'm not sure who to ask this of, but if I'm recalling correctly on the advertising area, the younger the person, the more susceptible to being persuaded by the advertising. Therefore, there would be some thought that you really want to guard the most the youngest—that's six and under.

Mr. MARTIN. Sure.

Senator BROWNBACK. Is that correct, Mr. Martin?

Mr. MARTIN. That's right. The Kaiser Family Foundation has determined that children six and under are not really able to distinguish between advertising and the programming itself. So, they're obviously much more susceptible to the impact of advertising.

And I would just add that, while, obviously, there are always First Amendment concerns whenever you're talking about any kind of restriction broadcasters are subject to a lesser standard on First Amendment restrictions; it's only moderate scrutiny instead of the strict scrutiny. And even for the paid programming in the area of children's programming, the Children's Television Act that Congress passed actually has limits on paid programming. Children can be susceptible to advertising and for this very reason, there is certainly a compelling governmental interest to protect our children. I think it could be narrowly tailored to address it. So, I'm not convinced that there would be a prohibition on us taking action.

Senator BROWNBACK. Thank you.

Senator HARKIN. Thank you very much.

Chairman Durbin.

PHYSICAL EDUCATION IN THE SCHOOLS

Senator DURBIN. Dr. Gerberding, you talked a little bit about physical activity, which is the other side of this equation—nutrition, good food, and the amount of exercise and activity that kids get. And I noticed, in your testimony, that you have given grants to 23 States, \$750,000 grants, to deal with these issues of nutrition and physical activity. That sounds like about \$18 million, if I did my math correctly here. And I noticed that, on the FTC proposal here, we find that we're currently seeing expenditures of \$185 million in schools by these folks promoting food and such. So, it appears you're being outgunned pretty dramatically here, 10 to 1, when it comes to this, which I think puts you at a decided disadvantage.

It reminds me, Chairman Harkin, of our battle against tobacco, when we would put out a couple of public service announcements, they would swamp us with Joe Camel.

But, let me ask you this. On the physical activity, Illinois takes false pride in the fact that it's the only State in the Nation that requires physical activity from kindergarten through 12th grade. It's false pride, because I've seen it, and it isn't what it should be. In high school, it's a joke. Two of those years are driver's ed and driver's training, and high school students, in 40-minute periods, are supposed to leave the classroom, get into their tennis shoes or whatever it is, exercise, and get back to the next class, all within 40 minutes. It doesn't work.

So, let me ask you about that aspect of it. Is there a better way to approach this, in terms of encouraging physical activity during the schoolday, that might be consistent with all the testing that we're doing and all the other demands that schools face?

Dr. GERBERDING. Well, first of all, we need to learn more about exactly how to do this well. And the school wellness programs that were required in the agriculture bill have required school districts to create plans for promoting fitness and better nutrition in the schools. But, right now we don't have any resource to evaluate where the best examples are and how that really is playing out so that we can say, "Here's the best-case scenario. Do it this way and everyone will benefit."

But, having said that, I think we have learned some best practices. There's a wonderful Web site at CDC, where schools can go. The problem is the competing priorities that the school districts are experiencing. And when they put more money here, it has to come out of some other part of their budget. And so, the real strategy is, How can we do this efficiently at low cost?

And some school districts have been able to figure this out, with very little increase in the school budget. I visited a school in Titusville, Pennsylvania, where every child in the school has what I would consider to be an optimal exercise program, and they were able to incorporate that by clever changes in scheduling and rearranging the way students move from one classroom to another, et cetera. So, it can be done, but we've got to accelerate the pace. And I think we need to require it.

Senator DURBIN. One of the charter schools in Chicago has what they call "walking school buses," where they have some parents who take on the responsibility of rounding up kids in a neighborhood and walking to school, picking up other kids on the way so that they actually do walk to school instead of send the buses out. But, that—that works in a city, it wouldn't work in a rural area in—necessarily, in Iowa or Illinois.

Dr. GERBERDING. It doesn't work in January, either.

Senator DURBIN. No, it—true. The weather can be a real problem with that, as well.

Mr. Martin, what about this embedded product advertising—Seinfeld's Junior Mints and things like that—what are we doing about that, in terms of products that pop up in television shows that kids are going to spot and obviously the advertisers or the people making the product believe might be of some value in marketing?

Mr. MARTIN. The Children's Television Act actually has limits on the ability of embedding advertising in the program. There is actually a requirement to have a bumper between the programming and any commercials on children's programming. So, on the children's side, actually that issue is addressed.

There is the issue of product placement that is occurring in commercial programming, just in general, even as targeted for adults, in large part because of the changes in the way the media companies are selling their product. They no longer have as much advertising revenue because of the way people are recording their programs and then fast-forwarding through some of the commercials. So, they are embedding more of those. We have certain rules and

requirements about the way that advertising is supposed to be disclosed, so consumers are aware, at the end of the program, that these certain products were paid to be placed, although the Commission has been investigating whether or not those companies are complying with those rules and/or whether we need to update our rules, as that is becoming more and more of a prevalent practice.

Senator DURBIN. The chairman asked Mr. Leibowitz about FTC rules and how they've changed when it came to advertising for children. It seems to me that there are some real parallels between our debate that's going on in another part of the Capitol now, about regulation in the banking industry, and what happened when we removed it and let the free market work its will, and we find ourselves in a pretty dangerous situation today. Do you feel that we've gone too far when it comes to reducing the role of the Federal Communications Commission, when it comes to program content and advertising on issues like this?

Mr. MARTIN. I've certainly been concerned about many of the different content issues as it relates to the role of protecting our children, whether it is talking about indecent content, violent content, or content that relates to healthy foods. I worked with my colleagues, and we made a recommendation to Congress, in part to respond to Senator Rockefeller's concern, about violent programming about what Congress could do to help restrict violent programming.

I think that we do need to be more concerned about that, particularly in an environment in which families are asked to contribute to, and pay for, these ever-larger and ever-increasing packages of channels that have programming that they may not want, but yet we are still forced to subsidize and pay for. I think that if we really wanted to have a free-market solution, we would allow people to pick and choose the channels they wanted, and then their choices would have economic meaning so that you could tell families, "If you don't like what's going on, on this particular children's programming, then you should not subscribe to it any longer," and that would have an impact on both their advertising and on their subscription dollars.

Today, those are not meaningful choices, because you're forced, as a family, to pay for those channels anyway. So, without an implementation of a true market mechanism to allow families to pick and choose the channels they want through an a-la-carte system, to be able to opt out of channels that they object to, then I do think there needs to be some kind of standard that is applied to the channels that are included in those packages.

Senator DURBIN. And, just for the record, can you tell why there's resistance to your idea?

Mr. MARTIN. Well, there is tremendous resistance to that idea from all of the media companies, because of the significant amount of money they receive, from their subscription revenues. As I said, families are required to pay for channels, even if they object to them. And as a result they are not able to send an adequate market message. This is a concern for families that are concerned about violence, that are concerned about potentially indecent content, and also about these unhealthy food products. So, I think that that would be the market solution. But, in the absence of the ability for families to make meaningful choices and have those choices

have economic meaning, then I think that there should be some kind of standard.

Senator DURBIN. Thanks.

Thanks, Mr. Chairman.

Senator HARKIN. Thank you very much, Chairman Durbin.

And thank you all very much. I thank the first panel. We have a vote coming up here at noon, so I'm going to have to dismiss this panel and bring our second panel up. But, thank you very much. Thanks, Dr. Gerberding.

All right, we'd call our second panel up, and that would be J. Michael McGinnis, M.D., from the Institute of Medicine; Marc Firestone, executive vice president, corporate and legal affairs, general counsel, Kraft Foods; Marva Smalls, executive vice president and chief of staff, MTV Network—

Again, I'm sorry, I was—the last person, I had not introduced, was Patti Miller, vice president of the Children and the Media, Children NOW. And, again, as I said to the first panel, all of your statements will be made a part of the record in their entirety, and I will start, as I did the list—first, Dr. McGinnis, Mr. Firestone, Ms. Smalls, Ms. Miller—in that order.

And if you could just give us a brief summary of your testimony, I'd appreciate that.

And we'll start with Dr. McGinnis—thank you very much for being here, Dr. McGinnis—from the Institute of Medicine.

STATEMENT OF J. MICHAEL MCGINNIS, M.D., MPP, INSTITUTE OF MEDICINE, WASHINGTON, DC

Dr. MCGINNIS. Thank you very much, Chairman Harkin. Thank you very much, Senator Brownback.

And I'd like to begin with a note of thanks to the committees for sponsoring the attention on this issue. It's clearly an important question and challenge for the Nation, and I'm pleased to be here to speak to you in my capacity as the chair of the study committee that you initiated, the Study Committee for the Institute of Medicine on Food and Marketing and the Diets of Children and Youth.

This report, "Food and Marketing, Children and Youth: Threat or Opportunity," was issued as a result of that study in December 2005, and I would like, briefly, to touch on just three items and submit, as you suggested, the full text of the testimony for the record.

First item is to review, quickly, the key elements of those 2005 report findings; secondly, to mention the many positive developments, in brief, that have transpired since the release of that report; and the third is to note the status, as of September 2008, vis-a-vis the recommendations in that report.

On the first issue, the key elements of our report, we were charged with reviewing, literally, the world's literature on the relationship between food marketing and the diets of children and youth, and the first lesson of our findings was that marketing works. It clearly does. And I'll come back to that in a second.

The second key element was that the dominant focus of marketing to children is on foods that are high in calories and low in nutrients.

And the third is that marketing itself is changing, and changing rather dramatically. It is a moving target.

With respect to the first charge, we reviewed over 2,000 articles, and reviewed extensively, with a rigorous analytic framework, the 123 that met our standards of evidence, and we found, quite clearly, that there's a strong causal relationship between marketing practices and the food preferences, purchase requests, and short-term consumption of dietary food products.

There was, we found, a statistical association between marketing and the prevalence of obesity, but not a causal relationship, because the timeframe of the studies that we assessed was too short to identify a causal relationship.

We also note that marketing works, not only with respect to the relationship to adverse dietary patterns, but also that marketing can work positively in a sustained social marketing context.

With respect to the dominant focus of marketing of food products on foods that are high in calories and low in nutrients, we did an independent analysis, for example, of the recent products, in the decade prior to the report, that were introduced into the market, found the slope for those products that were high in calories and low in fats targeted to children to be much greater than for the rest of the food supply.

Thirdly, to emphasize the fact that marketing, itself, is changing. With the notion of advergaming, Internet, the combined marketing strategies that Mr. Leibowitz mentioned, quite clearly we have a very different and rapidly changing marketing environment which requires ever more vigilance to its impact and its strategies.

In essence, what we found was that the subtitle here, "Threat or Opportunity," the answer is: both. It's both a threat, but it is an opportunity, and it's the opportunity piece that we need to focus on, I think, more extensively in the time ahead.

To some extent there have been a number of positive actions undertaken since the release of the report. Mr. Chairman, you and Senator Brownback both mentioned some of those. The work of the Council of Better Business Bureaus, several food company initiatives, the American Beverage Association, some of the cartoon character producers, both the FTC and the FCC initiatives that you've heard about, HHS and USDA have had ad hoc activities that are positive in this domain, and that you've mentioned also; the Robert Wood Johnson Foundation committed about half a billion dollars to the arena.

It is clear that there is interest and activity in this domain, but the question is the extent to which the actions have translated into progress, or when they will translate into progress. And that gets me to the last point I want to underscore, and that is, the assessment of the extent of progress as of today. And our take on the ten recommendations that were included in our report—and this is a matter of personal opinion, because they—we have not subjected them to systemic analysis, so I have to underscore, this is my personal opinion—is that, for the most part, there has been relatively limited progress; at best, the progress has been positive in the general sense, but there are a few areas in which it's actually reversed.

Just quickly, the ten areas of our recommendations ranged from the policies of individual food and beverage companies, the com-

mercial meal establishments, the trade associations that are cross-cutting standards that are applied to food and beverage products, and the media and entertainment industries. Those are, sort of, half of the recommendations that focused on industry practices. The remaining half focused on potential government actions, including the potential establishment of a sustained public/private social marketing effort, the policies related to marketing in schools, the issues available—levers available to government at all levels, such as the one that you mentioned on fruits and vegetable promotion, as well as a variety of other possible government actions; the research capacity—expanding the research capacity to understand how these marketing influences work; and finally, the monitoring issue.

PREPARED STATEMENT

In the review of the progress—and I'll mention this in the last 10 seconds—we found that much of the progress that's been undertaken have been more in the category of individual actions, actions that are, for the most part, ad hoc and fragmented, and some of them even counterproductive in their net effect. Without slighting the solid efforts of the Council on Better Business Bureaus and those of individual companies, or even the efforts of individual agencies in government, it's very clear that as long as the efforts are as fragmented as they are, as long as they are relatively unsupervised and they aren't part of a broader strategy, we're going to fall short of meeting that opportunity.

Thank you, Mr. Chairman.

[The statement follows:]

PREPARED STATEMENT OF J. MICHAEL MCGINNIS

Good morning, Chairman Harkin, Chairman Durbin, and members of the subcommittees. I am Dr. Michael McGinnis, Senior Scholar and Executive Director of the Roundtable on Evidence-Based Medicine at the Institute of Medicine (IOM) of the National Academies in Washington, DC. Thank you for your kind invitation to appear before this joint subcommittee hearing.

First a word about the Institute of Medicine, which is my current employer but my responsibilities lie outside this arena, and I am appearing here as an individual expert to address issues related to my prior responsibilities as an IOM committee chair. Established in 1970 under the Congressionally-granted Charter of the National Academy of Sciences, the IOM provides independent, objective, evidence-based advice to policymakers, health professionals, the private sector, and the public. That advice is developed through committees comprised of leading national and international experts from relevant fields convened by the IOM to conduct rigorous reviews of problems at hand. I join you today in the context a previous capacity, as Chair of the IOM Committee on Food Marketing and the Diets of Children and Youth. Our Committee produced the 2005 report, *Food Marketing to Children and Youth: Threat or Opportunity?* I appreciate the opportunity to speak to the findings of that report, the activities it has helped catalyze, and the current state of play in the field. Most of my comments will be oriented to matters of fact or interpretation of findings and recommendations from the report, and I will be clear when opinions expressed are personal and based solely on my individual expertise.

Against the backdrop of pressing public concern over the rapid and widespread increase in the prevalence of childhood obesity, Congress, in the fiscal year 2004 appropriation, directed the Centers for Disease Control and Prevention (CDC) to undertake a study of the influence of food and beverage marketing on the diets and health of children and youth. The CDC requested that the IOM undertake the study, and the Committee on Food Marketing and the Diets of Children and Youth was formed. The committee charge included exploring what is known about current food and beverage marketing to children and youth in the United States, the scientific evidence on the relationship between these marketing practices and the diets

and health of children and youth, and the strategies that have been, or could be, used to promote healthful food and beverage choices among children and youth.

The committee's report on Food Marketing to Children and Youth was released in December 2005 and published in 2006. It is one of several recent IOM examinations of various aspects of childhood obesity prevention, most notably Preventing Childhood Obesity: Health in the Balance, Congressionally mandated and published in 2005, and Progress in Preventing Childhood Obesity: How Do We Measure Up? published in 2007. Each highlights, from different perspectives, the urgent need for attention to obesity in children and for multi-sectoral approaches to addressing it.

Befitting the breadth of the topic, the food marketing committee was comprised of experts of unusually varied disciplines, experience, and perspective. The 16 members brought to the committee expertise not only in child and adolescent development, epidemiology, public health, and nutrition, but also in food production, marketing, children's television, causal reasoning, constitutional law, and business ethics.

The Food Marketing report represented the most comprehensive review undertaken of the scientific literature on the influence of marketing on the diets of children at that time—and remains so today. In conducting the study, the committee developed and applied a rigorous analytic framework to the systematic review of the relevant scientific literature. We also undertook an extensive review of the nutritional status of and trends for children and youth, what is known about the full range of factors that influence the dietary patterns of this population, the broad and evolving food and beverage marketing environment, and the policy measures that might improve the nutrition of young people. Since our report was published, the continuing improvement in identifying and understanding the influences of marketing on diets of children and youth, is encouraging and a reflection of the importance of this subject.

What did we find? In short, we found that marketing works. First, we found that there is strong evidence that television advertising of foods and beverages has a direct influence on what children choose to eat. Second, the dominant focus of food and beverage marketing to children and youth is for products high in calories and low in nutrients, and this is sharply out of balance with healthful diets. Third, marketing approaches have become multifaceted and sophisticated, moving far beyond television advertising to include the Internet, advergames, strategic product placement, and much more.

We also found that turning around the current trends in children's diets and in marketing will require strong and active leadership and cooperation, from both the public and private sectors. Industry resources and creativity must be harnessed on behalf of healthier diets for children. The food industry needs to be a substantial part of the solution to a problem to which it has been a contributor. The committee had limited access to proprietary marketing research, which might have shed additional light on some of the research and marketing patterns and strategies for child- and youth-oriented foods and beverages. Hence the importance of the focus of today's hearing and the work of the Federal Trade Commission.

The 2005 IOM Food Marketing report presented recommendations for different segments of society to guide the development of effective marketing strategies that promote healthier food, beverage, and meal options to children and youth. Recommendations were also offered for research necessary to chart the path of future improvements, and the capacity to monitor and track improving in marketing practices that have an influence on children's and youth's diets and diet-related conditions.

With respect to strategy, one thing is very clear: the turnaround required is so substantial, and the issues are so complex, that the full involvement and leadership of food and beverage industries is essential. The report identified a number of ways in which food, beverage, and restaurant companies, food retailers, and advertising and marketing firms can and should shift their child- and youth-oriented product development and marketing. It also suggested ways they can and should work with government, scientific, and public health groups to develop and enforce marketing standards for healthful foods and for marketing of products, to develop and implement an empirically tested rating system and graphic representation for front of package labeling, to develop a way to access propriety data, and to develop and implement a sustained public-private cooperative social marketing effort aimed at achieving better diets among our children. The report recommended that Congress consider legislative mandates, should voluntary efforts fail to shift the emphasis of television advertising to healthier products.

Since the release of our report, a number of interesting and important developments have occurred which hold promise for progress in improving the influence of marketing on children's diets. Several individual food companies have committed to

alter their marketing practices in various ways to give greater emphasis to children's products that are lower in calories and higher in nutrient density; Disney, Nickelodeon, and the Cartoon Network all have announced some limitations in licensing of their cartoon characters for use in marketing to children; the soft drink industry announced cessation of soda sales in elementary schools, with phased extension of that policy; the industry-wide voluntary self-regulatory guidelines administered by the Children's Food and Beverage Advertising Initiative were strengthened and expanded; the American Academy of Pediatrics called for rigorous standards on marketing food and beverages to children; in a settlement with CSPI, Kellogg's agreed to stronger standards in marketing healthier products; the Kaiser Family Foundation released the most comprehensive survey to date of the magnitude and trends for food advertising to children and youth; and the Federal Trade Commission undertook its study on food marketing and industry practices, and discussions here in Congress have included consideration of ways for the FTC to engage standards for foods marketed to children. Outside of the marketing arena, but important to overall progress is the pledge by my former colleagues at the Robert Wood Johnson Foundation to commit over \$500 million in the coming years to combating childhood obesity. These are all important developments. Still, as noted in the 2007 IOM report *Progress in Preventing Childhood Obesity: How Do We Measure Up?*, they are just beginnings and the fundamental gains for children are still to be realized.

Challenges of the scope and potential national impact of obesity in general, and childhood obesity in particular, require aggressive government leadership, hence our Committee recommendations that government explore the various incentives it has available to: encourage and reward companies that develop and promote healthier products for young people; use marketing resources in social marketing for healthier lifestyles for children; and develop the type of monitoring capacity required for a health challenge of this magnitude. On the monitoring activity, we specifically recommended that the Secretary of Health and Human Services, in consultation with other key officials, designate an agency to monitor the progress of various entities in doing their part to promote more healthful diets, and report to Congress on the progress made and needed actions. To our knowledge, that recommendation, among others, has yet to be addressed. At the end of this statement is a list of our 10 Committee recommendations¹ with an informal status assessment. I emphasize that this is my personal and preliminary view, offered without benefit of the rigorous and regular scrutiny warranted for an issue of this importance.

In summary, there is substantial and compelling concern about the prospects for future health gains if the epidemic of obesity is not reversed, beginning with its disturbing presence among children—our Nation's future. This is a matter of truly compelling urgency, and requires sustained and intense attention befitting any epidemic of potentially widespread and generation-changing lethality. We thank you for the attention and emphasis that you and your colleagues are drawing to this issue, and hope that it will help catalyze the changes necessary to transform the current threats into future opportunities.

That concludes my statement. Thank you again for the opportunity to appear before you today, and for your leadership on this vital issue for the health of Americans—now and in the years to come. I would be happy to address any questions you may wish to ask.

FOOD MARKETING TO CHILDREN AND YOUTH

2008 STATUS OF RECOMMENDATIONS IN THE 2005 IOM REPORT

Food and beverage companies should use their creativity, resources, and full range of marketing practices to promote and support more healthful diets for children and youth.²

—*2008 Status*.—Limited progress, initiatives beginning. The components of this recommendation include shifting portfolio balance toward more healthful products; reversing marketing emphasis in child- and youth-oriented products so that healthful products predominate; public-private collaboration to develop industrywide rating system and graphic representation for child- and youth-oriented products; and marshal marketing capacity for broad promotion of healthier foods and beverages. Activities such as those underway through the Council of Better Business Bureaus (CBBB) pledge program represent incen-

¹The recommendations are summarized at <http://www.iom.edu/CMS/3788/21939/31330/31337.aspx>.

²Note for emphasis: This status summary reflects personal and preliminary opinion, offered without benefit of the rigorous, regular, and formal scrutiny warranted for an issue of this importance. JMM.

tives for positive movement, and there may be some increase in development and marketing more healthful products. But we are far short of a reversal in the balance. The plethora of rating systems and graphic representations continues, potentially adding to consumer confusion. Despite ongoing discussion of the issue through the Keystone dialogue process on common labeling approaches to healthful products, the utility for children's products is unclear and neither government nor industry has specifically identified addressing this issue as a priority.

Full serve restaurant chains, family restaurants, and quick serve restaurants should use their creativity, resources, and full range of marketing practices to promote healthful meals for children and youth.

—*2008 Status.*—Very limited progress, growing interest and focus. The components of this recommendation include expanding healthier options for children and youth in commercial meal establishments, and providing key nutrition information at the point of choice and use. A number of national chains are conducting research and experimenting with approaches, and several States and localities have initiated legislative or regulatory efforts on restaurant menu labeling, which may step up the pace.

Food beverage, restaurant, retail and marketing industry trade associations should assume transforming leadership roles in harnessing industry creativity, resources, and marketing on behalf of healthful diets for children and youth.

—*2008 Status.*—Very limited progress. The components of this recommendation include trade association leadership and technical assistance for the initiatives of individual companies to develop creative approaches to healthful product lines, marketing strategies, and public-private partnerships. Although effects are still to be determined, the American Beverage Association initiated certain member efforts to shift sales and marketing efforts in schools. The Grocery Manufacturers Association has been focused, appropriately, on food safety issues, leaving leadership on healthful content largely to the initiative of individual companies. And the National Restaurant Association has opposed menu labeling initiatives. To date, none has worked to spearhead the collaborative development of the sort of sustained social marketing effort noted in recommendation #6.

The food, beverage, restaurant, and marketing industries should work with government, scientific, public health, and consumer groups to establish and enforce the highest standards for the marketing of foods, beverages, and meals to children and youth.

—*2008 Status.*—Some progress, pending assessment. The components of this recommendation include work of the Children's Advertising Review Unit (CARU) to strengthen self-regulatory guidelines; eliminate use of licensed cartoon characters for products other than those that promote healthful diets; and FTC-CARU cooperation on guideline monitoring and enforcement. Advertising guidelines have been strengthened, and the joint FTC/HHS conference and Better Business Bureau initiatives report progress in reducing advertising to children. Impact on broader marketing strategies is unclear. Other efforts, such as the FCC-sponsored task force on food marketing to children have not yet reported their progress. Announcement by Disney, Nickelodeon, and the Cartoon Network to impose limitations of their cartoon characters in marketing high calorie/low nutrient foods to children represents progress that needs evaluation.

The media and entertainment industry should direct its extensive power to promote healthful foods and beverages for children and youth.

—*2008 Status.*—No apparent progress. The components of this recommendation include incorporation of promotion of healthful foods through multiple media platforms, and close scrutiny and reporting by news organizations of the activities of public and private organizations on the level of effort in executing responsibilities and engaging opportunities. Information is not available on the trends on either dimension.

Government, in partnership with the private sector, should create a long-term, multifaceted, and financially sustained social marketing program supporting parents, caregivers and families in promoting healthful diets for children and youth.

—*2008 Status.*—Some reversal of progress, with respect to the notion of a sustained public-private effort. The components of this recommendation include development of a mechanism for a sustained public-private support stream for long-term social marketing efforts to improve the diets and activity patterns of children and youth; draw upon the marketing research and expertise accumulated by industry to shape strategies; give initial emphasis to skills building for parents and caregivers of young children. Although there are notable ad hoc activities under way (e.g. HHS and Advertising Council initiatives, Small Steps

obesity prevention campaign, America on the Move, Alliance for a Healthier Generation, Action for Healthy Kids), no government agency, company, association, or philanthropic organization has taken the initiative to create the public-private vehicle necessary for sustained conduct of the long-term strategic social marketing necessary for progress against the epidemic. In fact, public funding has ceased for the Verb Campaign of the Centers for Disease Control and Prevention, which showed some initial success in promoting physical activity among young teens.

State and local educational authorities, with support from parents, health authorities, and other stakeholders, should educate about and promote healthful diets for children and youth in all aspects of the school environment (e.g., commercial sponsorships, meals and snacks, curriculum).

—*2008 Status.*—Some progress. The components of this recommendation include implementation of nutrition standards for the school environment; promotion of more healthful foods in schools; and prominent leadership by all levels of public and private sector influence over school environments. Amendments through Public Law 108–265 to the Richard Russell National School Lunch Act and the Child Nutrition Act of 1966 have established a basis from which substantial changes can be made in the influence of school meals and school centered initiatives on children's diet and health, although effecting those changes has not received the top to bottom emphasis necessary. A 2007 IOM report focused on nutrition standards for food in schools, has been adopted and used in several States, and both CDC and USDA are working on related best practices for wider dissemination. Many industry marketing practices in schools are undergoing revision.

Government at all levels should marshal the full range of public policy levers to foster the development and promotion of healthful diets for children and youth.

—*2008 Status.*—Little apparent progress, despite some increase in ad hoc public education campaigns (see #6). The components of this recommendation include government incentives (e.g. subsidies, tax policies, awards) to promote availability and family use of fruits and vegetables; USDA use of school and other low-income food programs to promote healthier meals, and Congressional legislation on children's television advertising if industry-led initiatives do not turn around the marketing emphasis. Increased focus on school meals, as well as nutrition standards for other USDA food programs, but little information available on current status and trends; reliable updated information is also not yet available on which Congress might base legislation on children's broadcast and cable television advertising; and economic incentive programs are not yet widely in place to increase fruit and vegetable consumption.

The Nation's formidable research capacity should be substantially better directed to sustained, multidisciplinary work on how marketing influences the food and beverage choices of children and youth.

—*2008 Status.*—No apparent progress. The components of this recommendation include expanded research capacity to learn more about the ways marketing influences children's attitudes and behaviors, especially related to new and emerging multifaceted marketing strategies; and development of a means for commercial marketing research to be made available as a publicly-available resource for the design of broad social marketing strategies targeting diet and activity patterns of children and youth. Little research capacity has been developed to assess either the broader impact of new media marketing strategies, or the targeted impact on children's diets. No government agency, company, association, or philanthropic organization has taken the initiative to create the public-private vehicle necessary for the receipt, mining, and application of insights of commercial marketing research on behalf of strategies for pro-social marketing on children's diets and activity patterns.

The Secretary of the U.S. Department of Health and Human Services (HHS) should designate a responsible agency, with adequate and appropriate resources, to formally monitor and report regularly on the progress of the various entities and activities related to the recommendations include in this report.

—*2008 Status.*—No apparent progress. The components of this recommendation included consultation by the HHS Secretary with counterparts from USDA, Education, FTC and FCC to develop monitoring and reporting on progress on findings and recommendations of the report, and issuance by December 2007 of a report to Congress on the progress. Public knowledge is not available to indicate that a formal collaborative effort of this sort has been undertaken, nor has the report to Congress been submitted.

Senator HARKIN. Thank you very much, Dr. McGinnis.

I'm sorry the way—the seating arrangement—but the way it's lined up here is, next we turn to Mr. Firestone, executive vice president of corporate and legal affairs of Kraft Foods. Then we'll go to Ms. Smalls and to Ms. Miller.

**STATEMENT OF MARC FIRESTONE, EXECUTIVE VICE PRESIDENT,
CORPORATE AND LEGAL AFFAIRS, AND GENERAL COUNSEL,
KRAFT FOODS, NORTHFIELD, ILLINOIS**

Mr. FIRESTONE. Good morning, Mr. Chairman and Senator Brownback. Thank you so much for the privilege to appear before you today and to give me a chance to thank both of you personally for the tremendous and engaging leadership you've shown on behalf of the children of this country and their health and well-being.

Childhood obesity is, indeed, a serious public health issue, and it's one for which there's no simple answer. As experts, including IOM, have emphasized, we need a national effort that is comprehensive in scope, with active, coordinated participation by government and communities, the food and beverage industry, the entertainment and media industry, schools, and parents.

The consistent recommendation by experts for action specifically by food companies has been to change the mix of advertising to children to emphasize better-for-you choices and more physical activity. And, in that spirit, I'd like to share examples of what Kraft has been doing.

In 2003, we announced a worldwide initiative that focused on product nutrition, consumer information, marketing practices, and public policy engagement. Then, in 2005, Kraft took a bold step when it created what has become a model for limiting children's advertising. We announced that we would no longer advertise products that don't meet our better-for-you nutrition criteria in mass media primarily directed to children under the age of 12.

As a result, we stopped advertising many well-known, well-loved products to kids. It wasn't an easy decision for the company's management to take, but we heard, loud and clear from policymakers and consumers alike, that among the dozen or so actions that society should take to address this issue, changing food advertising was the one most directly under our control. Other food companies have since adopted a similar approach under the auspices of the Council of Better Business Bureaus. We were pleased to be a founding member of this initiative, and applaud the progress that's taken place in the last year and a half.

In addition, Kraft created the portion-controlled 100-calorie packaging that is now common throughout the industry, and we were the first to use dual-column nutrition labeling on small packages with multiple servings.

The FTC's recent report on food marketing recommended several important next steps, many of which Kraft already has in place. For example, we don't engage in product placement in children's media or in any in-school marketing.

Further, Kraft is participating with other food companies in a Keystone Roundtable to develop uniform nutritional criteria and labeling for better-for-you products.

To conclude, I'd like to share Kraft's perspective on the overall effort to address youth marketing and childhood obesity.

First, we view self-regulation as a means to an end, not an end unto itself. Voluntary action by industry can, indeed, be effective, and often is faster than regulation or legislation. In all instances, though, we are looking for approaches that make sense for our consumers, and therefore, our company and our shareholders.

Second, Kraft has shown it's willing to lead, even if there is a competitive disadvantage, but we certainly prefer a level playing field, both for our business and for making a difference socially. Fifteen major food companies have now pledged to follow the BBB advertising principles, and we think other companies that advertise food or beverages to children should do the same.

PREPARED STATEMENT

Third, although food companies absolutely have major contributions to make to this effort, we are only one part of the equation. A nationwide approach that covers all areas, from community intervention to food marketing to physical education in schools, is critical. We value the leadership and the encouragement—what we think of as the forceful encouragement—that the Congress, the agencies, and other bodies can bring to bear to ensure continued momentum in the right direction, including over areas over which we, as a food company, have little or no control.

Thank you, again, Senator Harkin and Senator Brownback. We look forward to answering your questions.

[The statement follows:]

PREPARED STATEMENT OF MARC S. FIRESTONE

Good morning Mr. Chairman and members of the Appropriations Committee. I am Marc Firestone, Executive Vice President of Kraft Foods.¹ It is a privilege to address you today on behalf of the more than 100,000 people who work at Kraft, the country's largest food company.

Thank you for holding this hearing and for your leadership on topics related to the well-being of children. You have set a tone that encourages people to work together, to find pragmatic solutions and to show real progress.

We recognize that childhood obesity is a serious public health issue. For any one person, the key is to find the right balance between calories in and calories out, but individual choices all take place within a broader context. Unfortunately, there's no simple way to improve diets and increase physical activity.

Economic conditions and access to nutritious foods; government policies and food company practices; parental involvement and school food programs; urban planning and building design: These and other factors all influence obesity rates. Therefore, as the FTC, the IOM and others have emphasized, we need a national effort that is comprehensive in addressing each of those factors.

A national commitment takes national leadership, which is what I believe you are providing through your encouragement—your forceful encouragement—to all participants in pursuing opportunities and addressing concerns within areas under their control. This includes government, the food and beverage industry, the entertainment and media industry, schools and parents. The consistent recommendation by experts for action on the part of food companies has been to change the mix of advertising to children to emphasize better-for-you choices and physical activity.

What Kraft is Doing

In that spirit, I'd like to share examples of Kraft's leadership within the food industry.

¹For more than a century, Kraft (www.kraft.com) has offered delicious foods and beverages that fit the way consumers live, including Kraft cheeses, dinners and dressings; Oscar Mayer meats; Philadelphia cream cheese; Maxwell House coffee; Nabisco cookies and crackers and its Oreo brand; Jacobs coffees; Milka chocolates; and LU biscuits. The company's stock (NYSE: KFT) is included in the Dow Jones Industrial Average and listed on the Standard & Poor's 100 and 500 indexes as well as the Dow Jones Sustainability Index and Ethibel Sustainability Index.

In response to concerns over obesity rates, we announced in 2003 an 11-point initiative. We focused on product nutrition, consumer information, marketing practices and public policy engagement.

Then, in 2005, Kraft took a bold step when it created what has become a model for limiting children's advertising. Kraft already had a long-standing policy not to advertise our products in media primarily directed to children under the age of six. In 2005, we voluntarily adjusted our advertising practices globally, so that all TV, radio and print advertising viewed primarily by children ages 6–11 would feature only Kraft products that meet specific nutrition criteria. These products are labeled with our Sensible Solution flag, so consumers can easily identify the better-for-you options in our product line. In 2006, we extended this policy to our websites.

We phased out advertising primarily directed to children 6–11 for products that do not meet the Sensible Solution criteria. As a result, a number of well known, well loved Kraft products, including Oreo, Chips Ahoy! and the original versions of Kool-Aid, are no longer advertised to children.

It wasn't an easy decision for the company's management to take. But we heard loud and clear from policy makers and consumers alike that among the dozen or so actions that society should take, changing our advertising was the one most directly under our control as a food company.

Many of our competitors and other companies have since adopted a similar approach to their advertising under the auspices of the Council of Better Business Bureaus. We were pleased to be a founding member of this initiative and applaud the progress that's taken place in the last year and a half.

As part of the BBB initiative, most major food and beverage companies have committed to advertise to children only those products that meet specific nutrition standards. And advertising content increasingly encourages active behaviors and aims to model appropriate meals, eating behaviors and portion control.

In addition, we created the type of 100 calorie, portion-control packaging that is now common throughout the industry. In most cases, we didn't simply put the same product in a smaller package. We created special recipes for making cookies, crackers and other items in a single serving of 100 calories. This gives consumers another choice.

And we were the first to use dual-column nutrition labeling on small packages with multiple servings. These labels do the math for consumers by showing calories and other data both on a per-serving basis, as FDA requires, and for the whole package. This helps consumers make informed choices in managing their diets.

The FTC's recent report on food marketing has recommendations for next steps, many of which Kraft already has in place. For example, we don't engage in product placement in children's media or in-school marketing. Further, consistent with the FTC's recommendations, Kraft is participating with other food companies in the Keystone Roundtable to develop more uniform nutritional criteria and labeling for "better-for-you" products.

Conclusion

To conclude, I'd like to share Kraft's perspective on the overall effort to address youth marketing and childhood obesity.

First, we view self-regulation as a means to an end, not an end unto itself. Voluntary action by industry can indeed produce results, often faster than regulation or legislation. The shift in food advertising is a great example. From our perspective, the issue is less about the means and more about the substance: We are looking for approaches that make sense for our consumers and therefore for our company and our shareholders.

Second, we remain eager to find common sense approaches. Kraft has shown it's willing to lead, even if there's a competitive disadvantage, but we certainly prefer a level playing field, both for our business and for making an impact socially. Fourteen major food companies have now pledged to follow the BBB advertising principles, which goes a long way in that direction. We think other companies that advertise food or beverages to children should do the same.

Third, enduring change comes when there is proportionally equal effort by all those who can influence the calories in/calories out equation. I believe that Kraft and other food companies have made major contributions to the effort. But we're only one part of the equation. A nationwide approach that covers all key areas, from community intervention to food marketing to physical education in schools, and so on, is critical. We value the leadership and forceful encouragement that Members of Congress, the agencies and other bodies can bring to bear to ensure continued momentum in the right direction, including in areas over which we, as a food company, have little control.

In closing, I thank you again for inviting Kraft here today. We are honored to be part of an effort that has shown progress is possible. I look forward to answering your questions.

Senator HARKIN. Thank you again, Mr. Firestone. And thank you again, publicly, for Kraft working with us through the years. I thought probably the boldest step of all was when Kraft decided not to advertise Oreo cookies to kids. I mean, whooo, that was quite a step——

Mr. FIRESTONE. Thank you, sir.

Senator HARKIN [continuing]. And we applaud you for it.

Now we turn to Ms. Smalls, executive vice president, public affairs, chief of staff of Nickelodeon, MTV Network's Kids and Family Group.

Ms. Smalls, welcome.

STATEMENT OF MARVA SMALLS, EXECUTIVE VICE PRESIDENT AND CHIEF OF STAFF, MTV NETWORK, IDS AND FAMILY GROUP (NICKELODEON), NEW YORK, NEW YORK

Ms. SMALLS. Thank you. And thank you for holding this hearing today, and for your leadership on this issue.

And let me just add, on a personal level, I've had a long-time interest, in that I was chief of staff to Congress when Robin Tallon, who chaired the House Subcommittee on Food, Nutrition, and Marketing—we actually had the first hearing on establishing the pyramid. But, at Nickelodeon our mantra has always been, "What is good for kids is good for business." And because of that, we were compelled to confront the childhood issue on obesity, and our approach was to make ourselves as smart as possible.

So, over the past 5 years, we've conducted research, we've reached out to advocates, food industry CEOs, government agencies, and academics. We've participated in public and private forums. We've partnered with organizations like the Boys and Girls Club, the Clinton Foundation, and the American Heart Association. And, based on all that we've learned through this around-the-world meeting with the stakeholders, we've committed more than \$30 million in annual resources and 10 percent of our airtime to balanced lifestyle messages. We've given more than \$2.5 million in grants in schools—to schools and community-based organizations, direct cash, many in the States you represent. We've launched the Let's Just Play Campaign and our annual Worldwide Day of Play, when all of our TV and Web sites go dark. And this year, the fifth annual Worldwide Day of Play will take place on this upcoming Saturday. We've pledged to limit the use of our licensed character, and we've put—characters—and we've put more resources into our long-form programming. And not to leave parents behind, we've launched Nick at Night's Family Table, encouraging families to share more quality meals together, and, just in January, we launched the Kick One, Pick One Campaign, asking families to exchange a bad habit for a good one on a monthly basis.

So, in conclusion, we agree with the Institute of Medicine's assessment that media can be an integral part of the childhood obesity solution, but advertising and media are not the only solution. Fighting obesity is a marathon, not a sprint. And while we've made great strides toward empowering kids and families with the tools

they need to navigate this issue, we are determined to go the distance to empower our audience to make balanced choices.

I'd like to just roll a tape that briefly summarizes all of the various programs we've done on air and off air, and then I'll be happy to answer any questions.

Thank you.

Senator HARKIN. How long is this?

Ms. SMALLS. It's one minute.

[The statement follows:]

PREPARED STATEMENT OF MARVA SMALLS

Good Morning. My name is Marva Smalls and I am the Executive Vice President of Public Affairs and Chief of Staff at the Nickelodeon Kids and Family Group.

At the outset, I want to thank Chairman Harkin, Chairman Durbin and Senators Brownback and Specter for holding this hearing today. I'd also like to acknowledge Senators Harkin and Brownback for leading the FCC Media and Childhood Obesity Task Force, a forum in which Nickelodeon was heavily engaged for more than a year and a half.

Nickelodeon's Kids and Family Group is comprised of four television networks. The Kids and Family Group also includes online, digital, consumer products and recreation businesses focused on children and families. Nickelodeon was launched 30 years ago and it has been the #1 cable network for the past 14 years, reaching over 83 million viewers per week. It is the most widely distributed channel in the world and can be viewed in over 175 countries.

During my 15 year tenure at Nickelodeon, 'what is good for kids is good for business' has been a guiding principle of the company. Year round, we work to ensure that our corporate responsibility and engagement upholds and honors that core value. It extends not only to the quality content we create for kids, but also to what we leave with them when they turn the TV off, put down their magazine or log off the internet.

As discussed in greater detail herein, Nickelodeon's ongoing efforts to promote health and wellness and combat childhood obesity demonstrate our commitment to kids, parents and families.

For kids:

- Let's Just Play, Nickelodeon's long-term, multimedia campaign designed to help kids make healthy lifestyle choices.
- Nickelodeon's commitment to license its characters only on "better for you" foods.
- The annual Worldwide Day of Play when Nickelodeon, Nicktoons, Noggin, The N and their corresponding websites go off the air and Nickelodeon partners with community-based organizations and schools to encourage kids to get up, go outside and play here in the United States and in ten countries around the world.
- Programming devoted to health and wellness like My Family's Got GUTS, Lazytown and the Let's Just Play Go Healthy Challenge and other short form content including PSAs.
- Partnerships with the American Heart Association and the W.J. Clinton Foundation's Alliance for a Healthier Generation, the NFL, the LeBron James Family Foundation and the Boys and Girls Clubs of America, which reaches millions of kids in diverse communities and clubs.
- \$2.5 million in grants to schools and communities to promote physical fitness and nutrition education.
- Regular features in Nick Magazine highlighting healthy activities and options for kids

For parents and families:

- Nick at Nite and TV Land's Family Table, an initiative to raise awareness about the benefits of quality, uninterrupted family time especially at meals.
- Nick at Nite's Kick One, Pick One, a new PSA campaign promoting kids and parents joining together to eliminate one unhealthy habit and choose a positive new one every 21 days.
- ParentsConnect.com, an on-line community for parents which features experts and advice on all matters related to health, fitness and good nutrition.
- Nicktrition, an effort with our fruit and vegetable licensing partners to introduce families to the produce aisle in retail stores and to provide healthy on-pack tips on packaged foods.

These commitments are ongoing, but they must be viewed in the context of the larger, multi-dimensional problem of childhood obesity.

CHILDHOOD OBESITY: A MULTI-DIMENSIONAL PROBLEM

Nothing matters more than the health of kids. Good health is the first key that opens the door to learning, to proper development, and a happy childhood. Unfortunately, despite some evidence that the obesity crisis has leveled off, far too many kids are getting too little nutrition and consuming too many calories while burning too few. Making matters worse, too many of these kids are African American, Latino, or from low-income families, which adds good health to an already long list of closed doors they face.

We all know the disturbing statistics about childhood obesity, so there is no need to repeat them here. The point I want to make is this: Childhood obesity is a challenge all of us must address because no matter what we do for a living, all adults are collectively responsible for the well-being of America's kids. Each of us must do our part. Each of us must connect kids to an active, healthy life-style.

We know that obesity has many complex causes: poor nutrition at home and at school, lack of access to safe recreational facilities, confusion about what is a healthy food and what is not. It is foolish to cite one factor and claim that changing it alone will solve the problem. There is no magic bullet solution. Fighting obesity is a process of evolution, not revolution. It is a marathon, not a sprint.

We wholeheartedly concur with the Institute of Medicine's assessment that media can be an integral part of the obesity solution, but advertising and media are not the only solution. We also know that at the end of the day, it is a personal commitment and responsibility. Anything we do must recognize that kids and parents need tools and messages from all stakeholders to help them make the daily choices that will change their lives.

NICKELODEON'S APPROACH

It is helpful to understand Nickelodeon's approach to confronting challenging social issues with our audience. When an issue becomes so prevalent that it impacts the well-being of kids, our approach is to do the necessary due diligence to ensure that our programming, initiatives and messaging will help serve our audience. Kids need to have command of information they can use and actions they can take so they are empowered to control their lives.

The company's current commitment to health and wellness is in line with its pro-social legacy. For example in the 1990s, we launched The Big Help campaign, an initiative to inspire and equip the Nation's youngest citizens to volunteer in their communities. The campaign moved beyond the traditional mold of linear public service campaigns to build a grassroots, in-community infrastructure in partnership with 28 national service organizations (e.g. Big Brothers/Big Sisters, National 4-H, Second Harvest, YMCA, the Boys & Girls Clubs of America, etc) to give kids service projects on the local level. Over an 8 year span, 33 million kids pledged and fulfilled more than 383 million hours of volunteering. Based on our success with The Big Help, the Centers for Disease Control invited us to help craft the direction of the VERB campaign in 2001.

Long before the media frenzy started about childhood obesity, we were compelled to confront it. The results were beginning to have disastrous implications especially for African American, Latino as well as other challenged communities in urban areas and regions such as the southern United States.

Our approach was to do what we've always done: to make ourselves as smart as possible on the issue and collaborate with willing stakeholders with the ultimate goal of empowering kids with information. We could have opted out, but that would have violated every principle that guides us. We opted in because that's how we operate.

We met folks who market to kids and those who believe it is wrong to do so. We did this to see and understand the whole picture because what is at stake is too important for anything less. We wanted all the facts and every opinion because everything was under review. We wanted to act smartly and effectively. What we learned helped guide the company in our health and wellness campaigns and craft content to help kids lead the way.

Our outreach on childhood obesity included advocates, food industry CEOs, government agencies and academics from Yale, New York University, Tufts University, and the University of Colorado, all of which are well-respected leaders in this field, to help formulate best practices and create scalable change. We have sought out and willingly participated in both public and private forums, sometimes in very heated debate, including the Institute of Medicine, the Kaiser Family Foundation, the De-

partment of Health and Human Services, the Federal Trade Commission and most recently the FCC Task Force on Media and Childhood Obesity. As the issue has spread around the world, we have worked with groups in other countries to discover more and more options to address the issue.

In collaboration with a leading academic institution, we conducted a national survey to identify kids and parents' attitudes and behaviors on eating, food, media and marketing.

What did we learn? Perhaps most telling, our research found that most parents feel overstressed and overscheduled. They are working longer outside of the house than ever before, so they have less time to spend with their kids and less time to prepare nutritious meals. This impacts how they make decisions and how they take responsibility. They are most likely to choose one of the following four options in orders of preference.

- One, what makes their life easier?
- Two, what makes their kids happy?
- Three, what helps them raise their kids to be “good” people?
- And four, what stays within their financial means?

Anyone here who has school-aged kids can understand why this is the case. For better or worse, these priorities are a natural outgrowth of modern life. If letting Johnny eat a frosted donut or danish for breakfast makes him happy, gets him off to school on time without fuss, and makes mom and dad's lives simpler, that's a trade-off many parents are understandably, if reluctantly, willing to make.

This reality speaks volumes about how stakeholders must work very specifically to address how children and parents can take responsibility. It is incumbent upon all stakeholders to acknowledge the reality of this important family dynamic, and the role parental responsibility must play, so that meaningful steps can be made.

Allow me to share with you in specific terms how we deliver on that promise to promote health and wellness and combat childhood obesity.

NICKELODEON'S HEALTH & WELLNESS INITIATIVES

For the past 6 years, Nickelodeon has championed health and wellness as its premier pro-social initiative. It represents a commitment of more than \$30 million in resources of the company. This unprecedented campaign involves engaging a leading registered dietitian/nutritionist and consulting with an advisory committee of experts on child nutrition, exercise and fitness, psychology and civic engagement. In addition, the company commits resources externally, partnering to build a national grassroots infrastructure for kids to be leaders in making healthy and balanced lifestyle choices in their homes, schools and communities.

Let's Just Play

Let's Just Play has been Nickelodeon's long-term campaign to help kids make healthy lifestyle choices. The Let's Just Play Go Healthy Challenge, a television program and website challenging children to make the changes necessary to lead healthier lives, launched the W.J. Clinton Foundation and the American Heart Association's Alliance for a Healthier Generation's outreach program to combat childhood obesity. In 2007, over 1 million kids signed up to take the Challenge and to follow a nine month healthy living program mirroring two role model kids. Our partnership with The Boys & Girls Clubs of America extends the reach of the program to millions more in diverse communities and clubs.

The Go Healthy Challenge does not just talk about calories in and energy out. It also helps kids understand the underlying causes of overweight and obesity, such as lack of physical education in schools, families not spending quality time together, regional demographic challenges, and insufficient safe play-space in communities, to name a few. By understanding the causes and giving them solutions to confront the obstacles they encounter, we are connecting the dots between information and action.

The campaign also offers a personal training game and tracking log for kids online so that they can follow their progress and celebrate their success. Nickelodeon delivers this and other Let's Just Play content through all multi-media platforms including Nickelodeon Magazine, www.nick.com, our broadband site www.TurboNick.com, wireless phones, video on demand and iTunes. We provide standards-based curriculum materials to teachers through our Cable in the Classroom website for educators at www.teachers.nick.com.

Activation of community events and programs has been the cornerstone of Nickelodeon's Let's Just Play campaign. Millions of kids and families in all 50 states have participated in Let's Just Play activities and community-wide events created with our partners as well as the National Football League, the National PTA, schools, mayors, and other community-based organizations. Nickelodeon provides tool-kits to

100,000 local organizers so that they can take advantage of Nickelodeon's connection with kids to generate more attention and support for their in-community health, nutrition and fitness programs. The kits feature Let's Just Play Go Healthy Challenge and include how-to information on organizing programs and events with kids, monthly themes based on goal-setting and health, and health information for parents. Additional resources, such as customizable banner, flyer and poster art are offered online to local organizations.

Local Grants for Under-resourced Programs

Since 2005, Nickelodeon has given \$2.5 million in local seed funding for health, nutrition, physical education and other fitness programs through the Let's Just Play Give-Away, a kid-driven grants program. Kids partner with their school or community-based organization to apply for the grants for much needed resources where physical education and nutrition education are lacking. Over 450 communities in all 50 states and the District of Columbia have benefited from these resources, including Iowa (\$45,000), Illinois (\$45,000), Kansas (\$42,000) and Pennsylvania (\$85,000). Winners are announced on-air and on-line, thereby raising awareness to kids about the lack of resources in schools and communities for nutrition, fitness and physical education programs.

Nickelodeon's Worldwide Day of Play serves as an annual culmination for Let's Just Play, as well as Family Table and Kick One, Pick One, our health and wellness initiatives on Nick at Nite and TV Land. In addition to suspending programming and "going dark" on air and online, Nickelodeon and its national and local partners generate thousands of local events to celebrate the accomplishments of kids and to hit home the powerful message of tuning out to play.

Make no mistake, this is not a one day effort or investment. This programming is a constant part of our content throughout the year. Let's Just Play daily messaging has included a growing library of short-form PSAs and interstitials. In addition, our long-form programming that features healthy messages include:

- My Family's Got GUTS,
- Nick News with Linda Ellerbee,
- The Let's Just Play Go Healthy Challenge,
- Lazy Town,
- Dance on Sunset, and
- The N's Student Body.

Initiatives to Engage Parents

What we have learned through our work on Let's Just Play is that kids cannot succeed without positive encouragement from their parents and others in their home. We launched Kick One, Pick One on Nick at Nite to involve the whole family with humor, simplicity and no guilt. This campaign is designed for kids and parents to write and sign a family contract committing to eliminate a bad habit and to pick up a newer healthier habit. In this way, kids and parents can support each other and keep each other honest in the process. Families can track their progress at www.nickatnite.com/kopo.

Kick One, Pick One is a natural extension of our 4 year effort with Family Table on Nick at Nite and TV Land, which promotes uninterrupted family dinner as a way for parents and children to discuss all sorts of topics of importance in their lives like work, school, difficult situations and healthy living.

Kick One, Pick One and Family Table messages are extended through Nickelodeon's online outreach to parents. On ParentsConnect.com and NickJr.com, you will find a host of resources for parents to find ways that they can help their kids with good nutrition, fitness and overall healthy living. ParentsConnect in particular is a community site where parents openly share advice as well as challenges on keeping healthy.

LICENSED CHARACTERS

In 2007, Nickelodeon announced that it will limit the use of its licensed characters to food packaging that meets "better for you" criteria as established by our marketing partners in accordance with governmental dietary guidelines. We will continue to allow characters to be used on a limited number of seasonal treats, such as Halloween candy. This policy will become effective with all new agreements beginning in 2009.

This announcement follows more than three years of pro-active efforts by Nickelodeon to seek and secure partners to license Nickelodeon's most popular characters for "better for you" food products. We've changed our licensing model so that we could establish on-going programs with a growing list of fruit and vegetable partners who otherwise would not have the financial means to market their products.

These now include, but are not limited to SpongeBob Carrots and Spinach; SpongeBob and Dora clementines, mandarin oranges and tangelos; Dora and Diego peaches, plums, and nectarines; SpongeBob and Dora Frozen Edamame. All Nickelodeon licensed food products are marketed with "Nicktrition" on-label food tips, which highlight portion control, valuable nutrients and healthful preparations.

COLLABORATION WITH ADVERTISERS AND FOOD COMPANIES

Nickelodeon actively engages its business partners to encourage improvements in how they market to kids and parents. These conversations have yielded changes in food labels, product re-formulations involving fat, sugar and sodium content, and kid-friendly portion sizes and information. These conversations have also led to the introduction of healthy options in kids' meals offered by Nickelodeon's quick service restaurant partners. In addition, all advertising must adhere to the advertising guidelines established by the Children's Advertising Review Unit (CARU).

Since last summer, 14 of the major food companies that market to kids took the unprecedented step of launching a major new self-regulatory initiative to complement the Children's Advertising Review Unit (CARU) guidelines. It is important to note that companies that are party to the agreement have announced pledges which exceed the agreement to devote at least 50 percent of all advertising primarily directed to children under 12 and to reduce use of third-party licensed characters in advertising directed to children under 12. In addition, most companies are well ahead of schedule in terms of full implementation by January 1, 2009.

IN CONCLUSION

The media and food industries have demonstrated their commitment to fighting childhood obesity. Now, the government must step in to address the main causes of childhood obesity, including the lack of recess and physical education in schools and proper nutrition in school lunches.

I am confident that a fair review over the past few years shows that the children's media landscape has changed for the better. On its own since 2002, Nickelodeon has made childhood obesity a filter by which we review all our business initiatives, whether television, online, digital, consumer products or recreation, and we will continue to do so.

Senator HARKIN. Thank you very much, Ms. Small.

Now we'll turn to our last witness, Patti Miller, vice president of Children NOW.

STATEMENT OF PATTI MILLER, VICE PRESIDENT, CHILDREN AND THE MEDIA, CHILDREN NOW

Ms. MILLER. Thank you, Senator Harkin and Senator Brownback, for holding this hearing today.

Our Nation's children face an unprecedented public health crisis. While a confluence of factors contribute to this crisis, food marketing is a significant one. In 2005, the Institute of Medicine recommended that the industry voluntarily shift marketing and advertising targeted to kids to products that are lower in calories, fat, salt, and added sugars and higher in nutrient content. If the industry was not able to achieve significant reform, the IOM recommended that Congress intervene.

More than 2 years have passed since the IOM's call to action, and, unfortunately, voluntary industry action has fallen considerably short of the goal. Industry leaders assert that the Children's Food and Beverage Advertising Initiative will address concerns about food advertising to children, yet the initiative is insufficient, for three main reasons:

Number one, food and beverage companies participating in the initiative lack a uniform nutrition standard for defining healthy foods. This poses numerous problems. It's confusing to parents. It creates situations where similar food products will be classified as healthy by one company, but will be considered unhealthy by an-

other. This absence of a level playing field allows companies to maneuver their product portfolios and their definitions of “better for you” to best serve their own economic interests. For any industry initiative to be effective, there must be a uniform nutrition standard.

Number two, food and beverage companies have created a huge loophole that allows non-nutritious foods to be categorized as “better for you.” They take products loaded with added sugar and fat, and then label them as “better for you” because they have a modest proportion of the unhealthy ingredients removed. Yes, it’s true that it’s better for you to eat Fruit Loops or Cocoa Puffs with less sugar than in the original formula, but it’s also true that these types of products remain non-nutritious. We must close the “better for you” food loophole and focus on shifting food advertising to children to actual healthy products.

Number three, media companies that deliver children’s programming are absent from any attempt to solve this problem. They point to the food and beverage companies, hoping they will fix it. Yet, without media company participation, another loophole is created. What do you do about the food and beverage companies that refuse to participate in the industry initiative? They will be allowed to continue to advertise junk food to children. That’s hardly a solution to this problem.

That’s why media companies must play a critical gatekeeper role by monitoring their advertising environments to ensure that unhealthy food advertising is significantly reduced, while healthy food advertising is enhanced.

PREPARED STATEMENT

Children NOW believes that media companies should be required to devote either equivalent time or a majority of their total time—advertising time—for the promotion of healthy food products. To accomplish this, Congress should, one, adopt legislation mandating that at least 50 percent of all food advertising to children on broadcast and cable TV programming be devoted to healthy food products, and, two, delegate to appropriate agencies the task of devising criteria for a uniform nutrition standard. It’s essential that we intervene on behalf of the Nation’s children. The stakes are too high to sell their needs short.

Thank you, Senators, for your leadership on this issue. We look forward to working with you to improve the health of the Nation’s kids.

[The statement follows:]

PREPARED STATEMENT OF PATTI MILLER

Children Now thanks Senators Harkin, Specter, Durbin and Brownback for hosting this hearing today to address the influence of food marketing on children’s health. It could not come at a more critical time.

Our Nation’s children are facing an unprecedented public health crisis. For the first time in modern history, we have a generation of children whose life expectancy may be lower than that of their parents.¹ The U.S. Surgeon General has identified

¹ S. Jay Olshansky, et al, “A Potential Decline in the Life Expectancy in the United States in the 21st Century,” *New England Journal of Medicine*: 352: 11: 1138–1145.

overweight and obesity as “the fastest growing cause of disease and death in America.”²

While a confluence of factors contribute to childhood obesity, advertising and marketing clearly are very significant ones. Children are exposed to tens of thousands of ads each year on television alone, the majority of which are for fast food, junk food and sugared cereals.³

In 2005, the Institute of Medicine released a report which found compelling evidence that television advertising influences the food and beverage preferences, purchase requests and consumption habits of children. The IOM recommended that the food industry voluntarily shift advertising and marketing targeted to kids to products and beverages that are lower in calories, fat, salt and added sugars and higher in nutrient content. If the industry was not able to achieve significant reform, the IOM recommended that Congress intervene.⁴

Children Now was hopeful that the industry—both the food/beverage companies and the media companies—would respond to the IOM’s call to action. Yet more than two years have already passed and unfortunately, voluntary industry action has fallen considerably short of the goal.

Industry leaders assert that the Children’s Food and Beverage Advertising Initiative, a voluntary self-regulatory program that includes 14 food and beverage companies, has sufficiently addressed the concerns about unhealthy food advertising to children. They tell advocates to give the Initiative a chance to work. Yet the Initiative is insufficient for three main reasons:

- The food/beverage companies participating in the Initiative say they will advertise “healthier products” to children—but the companies lack a uniform nutrition standard for defining healthy foods. This poses numerous problems. It will be confusing to parents. It creates situations where similar food products will be classified as “healthy” for kids by one company but will be considered “unhealthy” for kids by another company’s standards. This absence of a level playing field allows companies to maneuver both their product portfolios and their definitions of “better for you” food to best serve their own economic interests. For the industry initiative to effectively address the concerns about childhood obesity, there must be a uniform nutrition standard for defining healthy foods that food/beverage companies adopt.
- Food/beverage companies have created a huge loophole that allows non-nutritious foods to be categorized as “better for you” for children. They take products loaded with added sugar and fat, and then label the item as “better for you” because it has a modest proportion of the unhealthy ingredients removed. It’s true that it is “better for you” to eat Fruit Loops or Cocoa Puffs with less sugar than the original formula with all of the added sugar. But it’s also true that these types of products remain non-nutritious and that regular consumption poses a risk of obesity. “Better for you” foods are not the same as “healthy” foods. We must close the “better for you” food loophole and focus on the goal of shifting food and beverage advertising to children to actual healthy products.
- Media companies that deliver children’s programming are absent from any attempt to solve this problem. They refuse to take the necessary steps to reduce unhealthy food advertising to children. They simply point toward the food and beverage companies, hoping they will fix it. Yet without the participation of media companies, another loophole is created. Food/beverage companies that do not participate in the industry initiative will be allowed to continue to advertise junk food to children. That’s hardly a solution to the problem. Media companies must play a critical gatekeeper role by monitoring their advertising environments to ensure that unhealthy food advertising is significantly reduced, while advertising for healthy food products is enhanced.

Because there is no uniform nutrition standard;

Because unhealthy products creatively labeled as “better for you” are being passed off as healthy food for children;

And because the media companies refuse to play a role in protecting children from the advertising of unhealthy food products, all of the public health and child advo-

² Richard H. Carmona, “The Obesity Crisis in America,” Testimony of the United States Surgeon General before the Subcommittee on Education Reform, Committee on Education and the Workforce, United States House of Representatives, July 19, 2003. <http://www.surgeongeneral.gov/news/testimony/obesity07162003.html>.

³ Kaiser Family Foundation, Food for Thought: Television Food Advertising to Children in the United States, March 2007, <http://www.kff.org/entmedia/7618.cfm>.

⁴ Institute of Medicine, Food Marketing to Children and Youth: Threat or Opportunity, National Academy of Sciences Press, December 2005, http://books.nap.edu/openbook.php?record_id=11514&page=1.

cacy groups involved with the Joint Senate/FCC Task Force have refused to accept the industry initiative as a viable solution to the problem we face here.

Children Now believes that media companies (both broadcast and cable) should be required to devote either equivalent time or a majority of their total advertising time for the promotion of healthy and nutritious food products, as judged by basic scientific standards. To accomplish this, Congress should:

- Adopt legislation mandating that at least 50 percent of all food advertising to children on broadcast and cable television programming be devoted to healthy food products;

- Delegate to an appropriate agency or agencies the task of devising criteria for a uniform nutrition standard that would identify healthy, nutritious foods.

It is essential that we intervene on behalf of the Nation's children. Industry is privileging their profits over the health and nutrition concerns of the Nation's children. The stakes are too high to sell children's needs short.

Thank you Senators Harkin, Brownback, Durbin and Specter for your leadership on this issue. We look forward to working with you to improve the health and well-being of our Nation's children.

Senator HARKIN. Thank you very much, Ms. Miller.

I thank the panel for being here today.

Let me just start—first, I'll start with Ms. Smalls. I'm thrilled you're here today to represent Nickelodeon. When we're talking solutions, we must have Nickelodeon at the table. As you state in your testimony, Nick reaches over 84 million viewers per week. It's the number-one cable network. And so, I'm very happy to learn about the many initiatives that your network's been involved in over the last several years, and your collaboration with leading academics and experts in the field.

So, again—but, we have to take a realistic look at what's happening. Now, I was—looked at a statement that just came out for—the Center for Science and the Public Interest, that just did a study of Nickelodeon. And it said here, “In early 2008, the Center for Science and the Public Interest undertook a second assessment of Nickelodeon food marketing to children. The 2008 assessment indicates that Nickelodeon continues to market primarily foods of poor nutritional quality to children. The vast majority—79 percent—of food ads, products, and meals marketed to children by Nickelodeon are too high in fats, salts, and sugars. This is just a little lower than in 2005, when 88 percent were of poor nutritional quality.” So, they're saying that, really, not much has changed at Nickelodeon.

And it went on to point out that—and there's some data here—they did 28 hours, on Friday and Saturday, of Nickelodeon programming—they reviewed that—during which a total of 819 advertisements and PSAs and promos were shown. Of the 185 food ads, 177 had nutrition information available; 138—78 percent—of those ads were for foods of poor nutritional quality. Four—out of all of this, four nutrition-related public service announcements were observed, probably similar to what you just showed, one for every 34 ads for foods high in fats, salts, and sugar. So, you get 34 ads on Nickelodeon that are for foods that are high in fats, salts, and sugar, and you get one public service announcement.

And then they looked at the Nickelodeon magazine. Seven issues—August 2007 to March 2008—of Nickelodeon were reviewed. Of the 31 food ads, 24—or 77 percent—were for foods of poor nutritional quality. And use of licensed characters on food packages, nine food products containing Viacom marketing were found at the Georgetown Safeway grocery store in Washington,

DC—7 or 78 percent—of the products were foods of poor nutritional quality.

Last, they go to the promotional tie-ins between Nickelodeon and fast-food restaurants. During the study period, three restaurants featured Viacom tie-in promotions: McDonald's, with the Spiderwick Chronicles; Subway, with the Naked Brothers Band; and Chuck E. Cheese, with Bee Movie. Listen to this. Of 24 Happy Meal combos at McDonald's using this tie-in, 92 percent are of poor nutritional quality. Of 18 Fresh Fit Combos at Subway—much better—56 percent are of poor nutritional quality; 89 percent of Chuck E. Cheese's menu items are of poor nutritional quality.

So, with all of this, don't we think Nickelodeon has got a ways to go?

Ms. SMALLS. Well, sir, I'm very proud of the efforts Nickelodeon has made, and I think what's missing from that press release is the fine—footnotes and the fine print. For example, I believe that press release—I saw it only briefly before I sat down—was that 81 percent of our advertising is covered by the CBBB food pledges. So, let me begin by saying that only 20 percent of our advertising comes from food. The majority of that advertise—food advertising is covered by the CBBB pledges.

So, part of the issue here is not being sure what standards that CSPI has used in analyzing the food criteria, because we've attempted nutritional standards ourselves, and it is a challenging and daunting task. We used it to engage on our on-pack foods. But, for every one nutritionist or dietician we spoke to, there is a different nutritionist or dietician who had a different point of view. When we met with our individual food and marketing partners—if you take the 15 that have agreed to the pledge, they each have a different nutritional standard, based on their foods.

So, what I'm saying is, our air is balanced. So, if 80—if the majority—or if they—if we use their number, 81 percent of our air is covered by better-for-you food advertising, we believe we've closed the gap—

Senator HARKIN. Well, Ms.—

Ms. SMALLS [continuing]. A long way. And—

Senator HARKIN. So, Ms. Smalls, what you're saying is, you're relying upon the companies—

Ms. SMALLS. No, I haven't—

Senator HARKIN [continuing]. Themselves. That's—yeah.

Ms. SMALLS. Sir, we are—

Senator HARKIN. Eighty-one percent are covered by current CFBI pledges, remaining ads not subject to any company nutrition standards.

Ms. SMALLS. We—again, Senator, we have to rely on the experts, the people who are closest to the food product. We're an entertaining and media company, we aren't in the business of food. We could not begin, with any credibility, to develop nutritional standards for food for the diversity of products or manufacturers or the diversity of age groups that apply—that they would apply to.

We have a very balanced air. Even the CBBB pledges establish a 50-percent threshold. We give more than 30 percent—or, more than 10 percent of our airtime to balanced messaging, \$30 million in resources, direct grants, long-form programming. We go dark on

the air. We have engaged stakeholders, up and down—excuse the pun—the food chain. But, when the majority of our advertisers, who are closest to the product, and they have the experts who know what the nutritional standards makes most sense for their food, we’ve learned—we’ve learned, by attempting to establish the food standards, that we can’t do it. We don’t have the expertise to be a gatekeeper on nutritional standards.

Senator HARKIN. Well, there are standards that are out there that are widely accepted. The Institute of Medicine has come up with standards.

Dr. McGinnis.

Dr. MCGINNIS. We do have standards for nutrition products in schools. But, the fact is that the sort of standard that—across the board, as to what constitute a healthy food for children has not been subjected to a consensus study of that sort. It’s doable, I think. The issues are very complex, but it’s doable. And this is a very important issue. There do need to be—there needs to be a common understanding, across the board, about the standards for the labels, and there needs to be a more consistent approach, in terms of the graphics used to portray the food content so that the consumer is aided and not confused.

Ms. SMALLS. And just—

Senator HARKIN. See, that’s the idea—

Ms. SMALLS [continuing]. Just to follow up—if we—

Senator HARKIN [continuing]. That if—that Nick will only license their characters for foods that meet an individual food company’s nutritional standard. I don’t know what that means. What does Mars candy—I mean, what’s their nutritional standard?

Ms. SMALLS. Well, Mars candy—well, let me back up. We said we will only license our characters to healthier better-for-you products, in keeping with the U.S. dietary guidelines, as filtered through the individual company’s better-for-you standards. Again, the issue is, there is no uniform food standard across the 15 companies who’ve accepted the pledge, or even if you line up our—the other kids’ networks in—who’ve made commitments, and you lined up all of the standards that they’ve committed to, none of them are uniform. In contrast, if you look at what has been committed to in the United Kingdom by our channel there, the government, Ofcom, took the initiative and laid out uniform standards, and those are the standards we used.

So, if—between USDA, HHS, whoever established the pyramid, the dietary guidelines, or the industry themselves, if a baseline of uniform food standards can be established—because, as a media company—I assure you, it—we tried—it’s a challenging task. We don’t have the expertise, nor would we be credible in this space. But, if the industry or the government or something similar to Ofcom came up with uniform standards by which we could use to engage our advertising and marketing partners, we would be there. But, we cannot credibly come up with those standards to cover all of the food manufacturers and their products—

Senator HARKIN. Ms. Smalls—

Ms. SMALLS [continuing]. Or the agents.

Senator HARKIN [continuing]. Will Nick support uniform standards if they are adopted?

Ms. SMALLS. Sir, if uniform standards are adopted, and they apply to all of the industries we deal with, absolutely, we will use that as a filter for all of our—

Senator HARKIN. And—

Ms. SMALLS [continuing]. Marketing and advertising relationships.

Senator HARKIN. And in the meantime, could you do a better job—when you have 34 ads for foods high in fats, salt, and sugar, and only one for a public service announcement, that does not seem to me to be a balanced approach.

Ms. SMALLS. Again, sir, I don't know the statistics they used, but what you saw in that tape is the diversity of our air that our audience sees on a regular—

Senator HARKIN. I don't know. All I can tell—

Ms. SMALLS [continuing]. And consistent basis.

Senator HARKIN. All I can tell is, this is what they said of watching it over—

Ms. SMALLS. And I would—

Senator HARKIN [continuing]. A 2-day period—

Ms. SMALLS [continuing]. And I will—

Senator HARKIN [continuing]. Of time.

Ms. SMALLS [continuing]. Be happy to provide you and your staff more information—

Senator HARKIN. Thank you.

[The information follows:]

The Center for Science in the Public Interest (CSPI) hastily presented Nickelodeon with a report entitled “Nickelodeon: Food Marketing Little Improved between 2005 & 2008” just moments before the September 23 hearing. Although the two-page report was unscientific and lacked substantiation, it nevertheless generated interest among Members of the Committee. I feel compelled to set the record straight.

As an initial matter, the report actually undercuts the CSPI premise that food marketing to children has not improved by noting that just 20 percent of ads on Nickelodeon are for foods and “[e]ighty-one percent of the Nickelodeon food ads are covered by current [Children’s Food and Beverage Advertising Initiative (CFBAI)] pledges.” The balance of the report suffers serious flaws and should be rejected.

First, CSPI conducted its analysis in February 2008, almost a full year before the CFBAI food advertising pledges went into effect on January 1, 2009. CFBAI self-regulation must be given a chance to work, particularly since even CSPI has praised the program as “historic.”¹ For CSPI to ignore the pending implementation of the pledges is disingenuous at best. Nickelodeon expects the landscape of food advertising on Nickelodeon television and in Nickelodeon Magazine to be very different in 2009 than it was in February 2008.² As more food and beverage marketers join the CFBAI pledge program, as Nestle did last July, the scale of the change will be even more dramatic.

Second, CSPI developed a unique and arbitrary standard for “nutritionally poor” foods in ads aired on Nickelodeon. In some instances, the CSPI standards are stricter than industry and government standards. In other instances, they are less strict or unclear, such as in defining portion size. This lack of consistency, and the unhelpful confusion it adds for parents, underscores the need for a uniform nutritional standard.

The CSPI standard is one of at least 20 different non-governmental guidelines for nutritional content in children’s foods. In addition, there are competing U.S. governmental standards, including the U.S. Department of Agriculture’s MyPyramid and the Food and Drug Administration’s Dietary Guidelines for Americans. Using CSPI’s unique guidelines to measure food marketing on Nickelodeon makes little sense if

¹ See <http://www.cspinet.org/new/200707181.html>.

² In the absence of a uniform nutritional standard, the qualitative measurement of food advertising is inherently subjective. As a media company, Nickelodeon cannot and does not assess the nutritional content of food and beverages featured in advertising. Nevertheless, Nickelodeon expects a shift in the types of food advertisements in all media after January 1, 2009.

the goal is to evaluate the effectiveness of self-regulation. CSPI should direct their apparent concern with the CFBAI food standards to the food and beverage companies that created them.

It also makes little sense for Nickelodeon to add yet another set of nutritional standards, as CSPI suggests. Setting aside the practical difficulty in having a media company develop nutritional standards, how would more than 20 sets of standards help kids and parents navigate what is “healthy” and what is not? Plainly, it would not.

Finally, the CSPI report failed to provide proper perspective on the children’s media industry. Nickelodeon is the largest, but not the only, children’s media company. Time Warner Inc., The Walt Disney Company and Discovery Communications Inc. each accept food advertising and sponsorships directed to children. If CSPI had surveyed these companies, they would have discovered similar food products and promotions likewise not yet subject to fully implemented CFBAI pledges.

Ms. SMALLS [continuing]. That counters that, sir.

Senator HARKIN. Thank you.

Senator Brownback.

Senator BROWNBACK. Thank you very much, Mr. Chairman.

Ms. Miller, you put forward a proposal to have half the advertising time being put toward something healthy. If you’re going to advertise junk food, okay, but of 100 percent of your budget, half of it has to go to some healthy product or setting.

Dr. McGinnis, do you agree or like that proposal?

Dr. MCGINNIS. Yes. The committee that issued the report in 2005 recommended that the proportion of food products that are marketed be reversed, in terms of the relative emphasis on foods now that are high in calories and low in other nutrients, toward a—marketing products that were more helpful. We didn’t set a specific percent, but, in fact, some of the members, as I mentioned, were, in fact, focused on a reversal, which would be a much greater proportion change.

Senator BROWNBACK. Mr. Firestone, first, thank you guys for what Kraft has done, and done voluntarily. And I’m sure that’s come at some market dislocation for some of your products.

And I’d note, just parenthetically, chairman, when I was there to help present that BBB award. That was the last time I saw Tim Russert. He was there at that award presentation, the last time I saw him, was a strong proponent and supporter of it, as well.

I sense, in what you’re saying, though, that you’re saying, “Look, we’ve got to have a level playing field on this.” Now, what do you mean by that?

Mr. FIRESTONE. Well, Senator, I’d say that I think—two things I’d mention. One is that these are difficult commercial decisions that we make, and will continue to make because of the broader social policies. The question of 50 percent versus 100 percent, for example, is one that’s come up, where basically our rule is 100 percent. So, 100 percent of the products we advertise meet the sensible-solutions standards, and zero of the products that we advertise don’t. So, we’ve basically made it an all-or-nothing standard, as opposed to the 50 percent. And some other companies have started to come along.

So, one would be a degree of uniformity and consistency in the standards, including the nutritional criteria and the other practices.

And then, second, and more broadly, as everybody has been saying, this morning and in your July hearing, this whole issue takes

place in a broader ecosystem, of which marketing is a hugely important part, and we want to do our part, but community intervention, for example, is something that can be very powerful.

So, ideally, what we, from the food companies, do, and the others, all interrelate in the broader program. So, it's the level playing field within our industry, and the integration of what we're doing with what the other five or six components of the ecosystem are doing.

Senator BROWNBACK. Well, let me get sharper to the point, then.

Mr. FIRESTONE. Yes, sir.

Senator BROWNBACK. Is it that you believe all food companies should be required, 100 percent, to do what you're doing, to level that playing field?

Mr. FIRESTONE. Well, yes, Senator, as I said in my opening remarks, we certainly hope that all of the food companies will follow the BBB standards, along with us and the other 14 companies that have done so. So, yes, we would like to see the entire industry following a similar approach.

Senator BROWNBACK. And required to follow?

Mr. FIRESTONE. Well, I think that what we've seen over the last few years really is a huge change in the mix of advertising, in a relatively short time. We announced, in 2005; we're now 2008. There's been a huge change in the mix of advertising. So, I think self-regulation has shown that it has the advantage of speed, so—and, as Commissioner Leibowitz was saying, it avoids questions of litigation. So, to the extent that the pace remains as impressive as it's been, we would certainly support, through your forceful encouragement and your encouraging companies to participate, that—everybody to do so.

And I'd defer, to the broader question of whether, at this point, there should be legislation. I think we've seen the speed and the effectiveness of these voluntary measures that has proven—

Senator BROWNBACK. Well, and that's what I certainly support. And I've started down this road—gosh, this has been a couple of years ago. I think Kaiser Family Foundation had a meeting I presented and said that where we need to do this on a voluntary basis.

This is a problem. It's a big problem. It's well documented that it's a problem. It is in a broader environment, as we heard from Dr. Gerberding. But, this is a piece that can be gotten at, and I think we've got to do our job on the school nutrition and physical education, as well. There's no question about it. But, here's one that you can get right at.

And as a parent of five children and two 10-year-olds, I've witnessed the power of advertising, and I know it's very strong.

And, Ms. Smalls, I think that's what the chairman's really getting at with you, where you've got a powerful set of characters in it, so that anything you can do would be helpful. My 10-year-old son is a real fan of SpongeBob, which I didn't know existed until he started watching him. And then you put SpongeBob on a product of fruit-flavored snacks—now, I don't know that he sees SpongeBob as an authority figure, but it certainly is attractive to him.

And this was purchased yesterday. I don't think my next-door neighbor, who's a dentist, would like these at all. They really stick

to the teeth, and the lead ingredient in this—sugar, modified corn syrup, cornstarch, just a number of not particularly healthy items. And we got this yesterday.

And I think that's what the chairman is pointing out, that I'm concerned about, too, is that you do have a big impact in a youngster's mind. And you know that. And you entertain them. You spend a lot of time with them. In many cases, you spend more time with them than most parents do, unfortunately, given the way things have evolved in our society. And so we're really saying to you, and pleading with you, that you've got to get it better for us to be able to move this forward, given your presence in their lives. And I'm sure you can appreciate that.

And I would just really press you that, to the degree you can, that you go back to your company and you press within the corporation, that we've got to do better, because we are at a crisis stage on this. And self-regulation is the better route to go. But, if it doesn't work then the other steps move on forward. And you've heard the testimony here today, as well. So, we'd really plead with you on that.

Ms. SMALLS. Well, Senator, I was the one who engaged with you, 2 years ago at the Kaiser study, and encouraged the formulation of a task force, a safe-space kind of environment that did take place with a task force. And since that time, we have—the industry, most all, have agreed to limit the use of licensed characters. Fifteen companies have signed the CBBB pledges, all to take——

Senator BROWNBAC. But, what about this guy?

Ms. SMALLS [continuing]. Effect in January 2009. Our agreements that are——

Senator BROWNBAC. Not until 2009, this guy comes off?

Ms. SMALLS. Well, we also have SpongeBob Dora on edamame grapes, vegetables, Clementines——

Senator BROWNBAC. When does he come off of this?

Ms. SMALLS [continuing]. Oranges——

Ms. SMALLS. He—effective January 2009, our licensed characters will only be used on better-for-you products. In addition to that, most of the food companies—15 of the major food manufacturers have said they will only market their better-for-you products to our core audience. So, I think, in January—the pledges aren't fully in effect yet, and we've already seen tremendous movement. I think that we're going to continue to see even more movement when all of the pledges, by both the food companies, the media companies, are fully loaded in. But, we——

Senator BROWNBAC. Okay.

Ms. SMALLS [continuing]. Are also—created partnerships with the Fresh Food and Marketing Association and Vegetable Association. So, our characters on—are on a variety of products. And, you know, but it is this whole intervention across many platforms.

The other——

Senator BROWNBAC. May I get to——

Ms. SMALLS [continuing]. Thing you said——

Senator BROWNBAC.—Ms. Miller, too, here? We've given you quite a bit of time to respond, and we appreciate that.

Ms. Miller.

Ms. MILLER. Yes. I just want to make sure everyone is clear on the advocates and public health groups' position on this issue. Better-for-you foods does not mean healthy foods. You can take out a couple of grams of sugar, you can take out a couple of, you know, parts of the salt; that does not mean—then you're putting characters on something—that that, in fact, is advertising a healthy food to kids.

Senator BROWNBAC. That's where we've got to get the standard—

Ms. MILLER. That's what we—

Senator BROWNBAC [continuing]. Developed—

Ms. MILLER. That's why we need a standard here. You can talk all about—you know, companies saying, "We have 100 percent of better-for-you"—that doesn't work for us. We need at least 50 percent of foods advertised to children to be healthy. And that should be judged by a uniform nutrition criteria that we all agree to accept, that can be devised, you know, across agencies, across government agencies, that, you know, people who have expertise in determining what good nutrition criteria would be, sit down, and it's evidence-based, that it's based on good scientific criteria.

But, better-for-you foods does not equal healthy foods, and that's where the advocates and public health groups come down on this issue. So, you can put characters on some products, and that doesn't necessarily mean we're getting to the root of the problem.

Senator BROWNBAC. Thanks, chairman.

Senator HARKIN. Thank you very much, Senator Brownback.

I thank the panel for being here today and for your involvement in this issue. We are going to continue to, obviously—both Senator Brownback and I have been working together on this for a long time, we're going to continue to work on this issue.

I would ask consent that the hearing record be left open for 1 week, and for the addition of other statements to be included in the record.

CONCLUSION OF HEARING

Senator HARKIN. Thank you all very much. The subcommittees will stand recessed.

[Whereupon, at 12:16 p.m., Tuesday, September 23, the hearing was concluded, and the subcommittee was recessed, to reconvene subject to the call of the Chair.]